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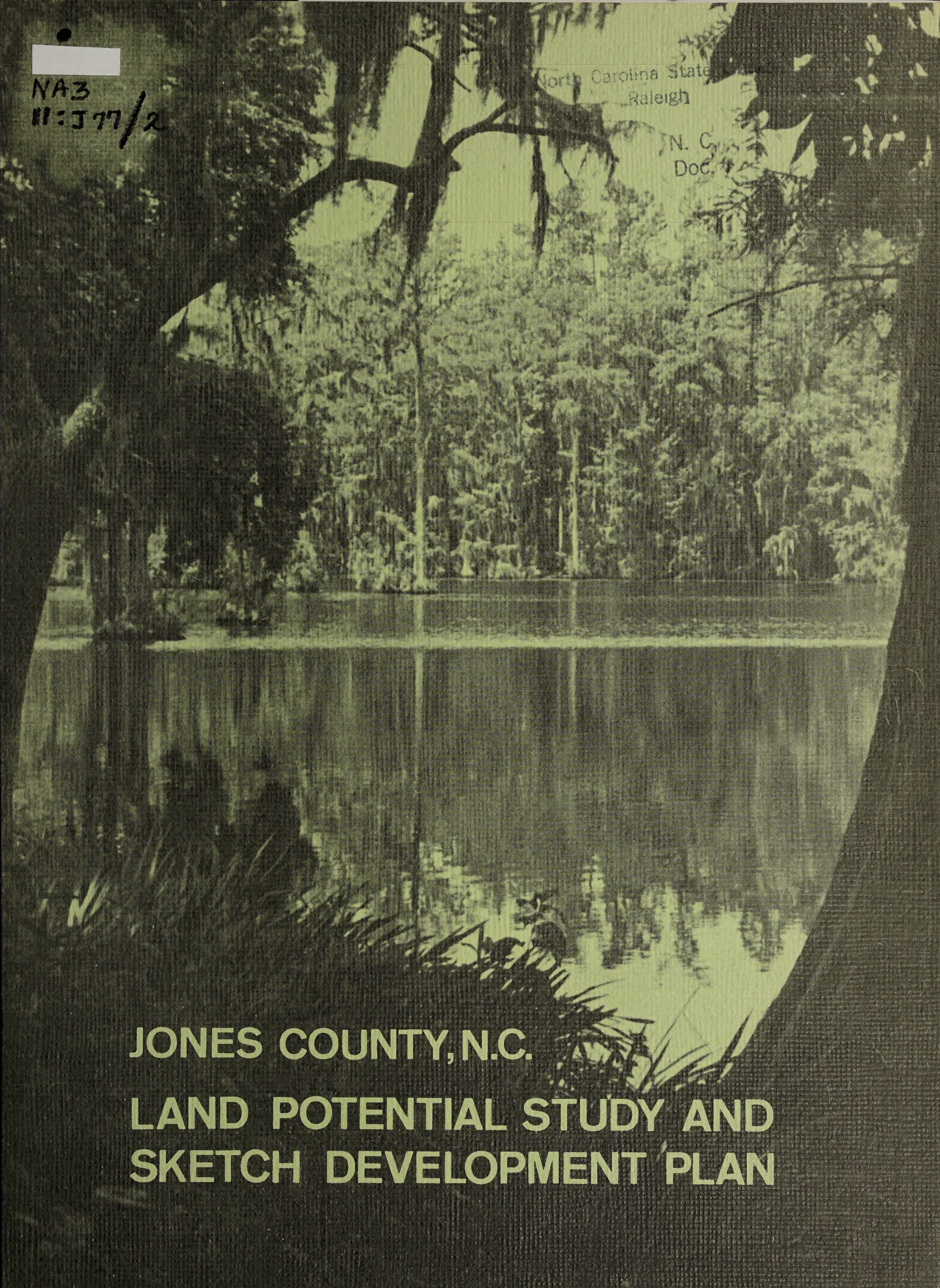

JONES COUNTY, N.C.

LAND POTENTIAL STUDY AND SKETCH DEVELOPMENT PLAN

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The Land Potential Study investigates those factors, both natural and man-made, which create a potential for or will influence the future development of Jones County.

The Sketch Development Plan, based generally on the findings and recommendations of the Land Potential Study, provides a general guide to aid local citizens and governmental agencies in the future development of Jones County. Included are basic general "goals and objectives", and "development principles and standards" to assist the county in establishing development policies, and a "Land Use Plan" to guide the location of future land uses in the county.

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TABLE OF CONTENTS

LAND POTENTIAL STUDY

Page

I. INTRODUCTION 1

Regional Setting 1
Incorporated Municipalities 2
History of Development 2

II. POPULATION AND ECONOMIC CHARACTERISTICS 6

General Population Characteristics and Trends 6
Educational Characteristics 8
Racial Characteristics 11
Income 11
Employment 11
Retail Sales 12
Population Projections 12

III. PHYSICAL CHARACTERISTICS 14

Climate 14
Topography 17
Surface Water and Drainage 17
    Stream Characteristics and Pollution Factors 17
    Stream Classifications 18
Ground Water 24
Geology 24
Soils 28
    Agriculture Interpretations 29
    Non-Agriculture (Urban) Interpretations 31

IV. EXISTING LAND USE PATTERNS 41

Residential 41
    Housing Conditions 42
Commercial 42
Public and Semi-Public 43
Industrial 43
Agriculture 43
Forestry 44

Table of Contents continued

V. COMMUNITY FACILITIES AND SERVICES. 47

Medical. 47
Solid Waste Collection and Disposal. 47
Police Protection. 48
Fire Protection. 48
Emergency Rescue and Ambulance Service 52
Schools. 52
Utilities. 56
    Water Facilities. 56
    Sewer Facilities. 56
    Electrical Power. 58
    Natural Gas 58

VI. TRANSPORTATION FACILITIES. 61

Hard Surface Road System. 61
Railroad System. 61
Bus Transportation Facilities. 61
Water Transportation Facilities. 61
Air Transportation Facilities. 62
Commercial Motor-Freight Facilities. 62

VII. DEVELOPMENT POTENTIAL. 65

Urban Development Potential. 65
    Residential 65
    Commercial. 66
    Industrial. 66
    Recreation. 67
Non-Urban Development Potential. 67
    Agriculture 67
    Forestry. 68

SKETCH DEVELOPMENT PLAN

I. INTRODUCTION 71

II. DEVELOPMENT GOALS AND OBJECTIVES 71

III. FUTURE LAND USE. 72

Residential Land Uses. 72
    Low Density Residential 72
    Medium Density Residential. 73
    Development Principles and Standards. 73
Commercial Land Uses 73
    Development Principles and Standards. 74
Public and Semi-Public 74
    Development Principles and Standards. 74
Industrial Land Uses 74
    Development Principles and Standards. 75

IV. SUMMARY AND CONCLUSIONS. 75

APPENDIX

Appendix A - Environmental Impact Statement A-1

TABLE OF CONTENTS

TABLES & ILLUSTRATIONS

Table No. Page

I. Jones County Population, 1940 -- 1970. 6
II. Jones County Population by Age and Sex, 1960 -- 1970 . . . 7
III. Educational Attainment 8
IV. Population Projections, Jones County 1970 -- 1990. 13
V. Chemical Analysis - Trent River - Sample Location A. . . . 21
VI. Chemical Analysis - Trent River - Sample Location B. . . . 22
VII. Chemical Analysis - Ground Water 27
VIII. Summary Data - Soil Suitability for Urban Development. . . 36
IX. Summary Data - Jones County School System. 57

Illustration No. Page

I. Regional Setting 3
II. Population by Age and Sex 1960 -- 1970, Jones County and State of North Carolina 9
III. Temperature and Precipitation Averages 15
IV. Topography, Surface Water and Drainage 19
V. Stream Classification. 25
VI. Soils. 37
VII. Generalized Land Use 39
VIII. Large Land Holdings -- Jones County. 45
IX. Solid Waste Collection and Disposal 49
X. Community Facilities - Fire Protection - Schools - Rescue Squad. 53
XI. Utilities, Water - Sewer - Electricity 59
XII. Transportation Facilities - Annual Average Daily Traffic . 63
XIII. Recreation Development Potential 69
XIV. Land Use Plan. 77

LAND POTENTIAL STUDY

INTRODUCTION

The Jones County Board of Commissioners in March of 1972 contracted with the N. C. Department of Natural and Economic Resources, Division of Community Services, for assistance in beginning a comprehensive planning program for Jones County. Planning work during the first year is to include a "Land Potential Study," a "Sketch Development Plan," county-wide "Subdivision Regulations," and an "Initial Housing Study."

The Land Potential Study is being conducted to determine the physical and cultural features that create a potential for or will tend to influence the future development of Jones County. Much of the information contained in the Land Potential Study will be used as a basis for the preparation of future planning studies and reports and as a basis for making recommendations pertaining to the future development of the County as outlined in the Sketch Development Plan.

Included in the Land Potential Study will be an analysis of the County's physical characteristics, i.e., climate, topography, soils, etc.; an analysis of existing land uses, community facilities and transportation facilities in the County; and, a brief look at the County's population and economic characteristics. From these investigations, the development potential including the identification of development problems, will be summarized.

The Sketch Development Plan will be published jointly with the Land Potential Study as one volume. The Plan will contain recommendations and general guidelines for the future development of Jones County including designation of areas most suitable for various types of urban development.

REGIONAL SETTING AND GEOGRAPHICAL DESCRIPTION

Jones County is located in the east central coastal plain section of North Carolina approximately 85 miles southeast of Raleigh and 10 miles inland from the Atlantic Ocean. Jones County is bordered on the east by Craven and Carteret Counties, on the south by Onslow County, on the west by Duplin and Lenoir Counties, and on the north by Lenoir and Craven Counties.

There are approximately 467 square miles of land (298,880 acres) within Jones County. The County is somewhat rectangular in shape with an approximate length of 30 miles in a northwest-southeast direction, and it is approximately 15 miles across the County from northeast to southwest.

Jones County is part of the nine county State designated Planning Region P.* Regional planning and development activities of the nine county area are coordinated through the Neuse River Council of Governments** with offices in the City of New Bern. Kinston and New Bern, two major cities within the nine county planning region and important centers of employment are within easy commuting distance of Jones County (See Illustration I).

---

*The nine counties of State Planning Region P are: Carteret, Craven, Duplin, Greene, Jones, Lenoir, Onslow, Pamlico and Wayne.

**Formerly Neuse River Regional Planning and Development Council.

INCORPORATED MUNICIPALITIES

There are three incorporated municipalities in Jones County: Maysville (population 912), Pollocksville (population 456), and Trenton (population 539). It is in these three areas primarily, that the County's basic services and facilities are located as well as most of the County's employment other than farm related employment.

TRENTON, located near the center of the County, serves as the County seat and it is here that most government business of the County is conducted. The Town of Trenton was established by a bill of the General Assembly in 1784 and takes its name from the Trent River, which is located adjacent to the Town. Trenton is less than 30 minutes driving time from both New Bern in Craven County and Kinston in Lenoir County (18 and 22 miles from Trenton respectively).

MAYSVILLE, which is located in the southeastern part of the County near the Jones County-Onslow County line, is only a 20 minute drive (15 miles) from the City of Jacksonville and less than 30 minutes (20 miles) from the Camp Lejeune Marine Base in Onslow County. Maysville is known as a sportsman's center, primarily because of the deer and bear hunting in the State and National Forests nearby.

POLLOCKSVILLE, located on the Trent River in northeastern Jones County, is the oldest Town in the County and was, in its early days, a thriving steamboat landing with merchants buying and selling with planters in the area. The River is navigable with an average-depth 10 foot channel to New Bern thence to the huge Pamlico Sound and the Atlantic Ocean. Pollocksville is only 15 miles from New Bern via Highway 17 and, like Maysville, it is popular with sportsmen because of the deer and bear hunting nearby.

HISTORY OF DEVELOPMENT*

Jones County was settled early in the 18th century by German Palatines and Swiss who had migrated farther inland from New Bern and what is now Craven County. Earlier, the German and Swiss settlers had been almost completely wiped out by the Tuscarora Indian uprising (Tuscarora War of 1711 in the vicinity of New Bern).

The original settlement of Germans and Swiss along the Trent and Neuse Rivers in New Bern had been under the leadership of Baron Christoph de Graffenried. However, after the Tuscarora War had nearly annihilated his colony, the discouraged de Graffenried sold his interests to Thomas Pollock. As a result, many of the remaining settlers had to push farther up the Trent to find new land. Some of the settlers crossed over into what is now Duplin County on the upper Cape Fear, but most of the migrating settlers built their homes in the backwoods of Craven County - what is now Jones County. Colonel Pollock, once governor, eventually settled his family where the Town of Pollocksville stands today.

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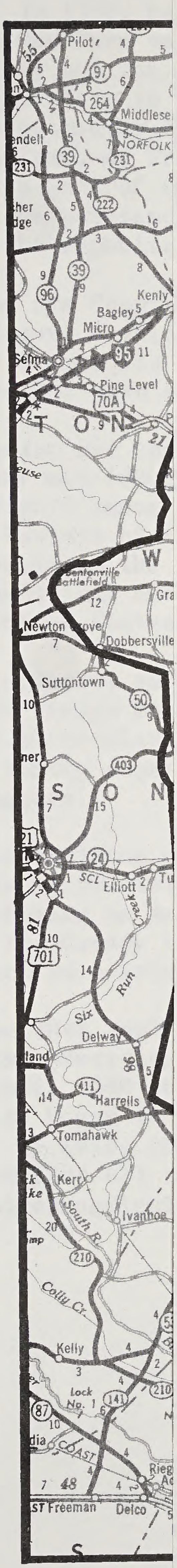
*Unless otherwise noted, the information in this section was taken from: A New Geography of North Carolina, by Bill Sharpe; Sharpe Publishing Company, Inc., (Raleigh, N. C., 1965) Vol. IV, pp. 1924-1932.


Pilot
Middlesex
NORFOLK
Kenly
Bagley
Micro
Selma
Pine Level
T O N
W
Bentonville Battlefield
Newton Grove
Dobbersville
Suttontown
S O N
SCL
Elliott
Six Run
Delway
Harrells
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Lock No. 1
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411
210
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48

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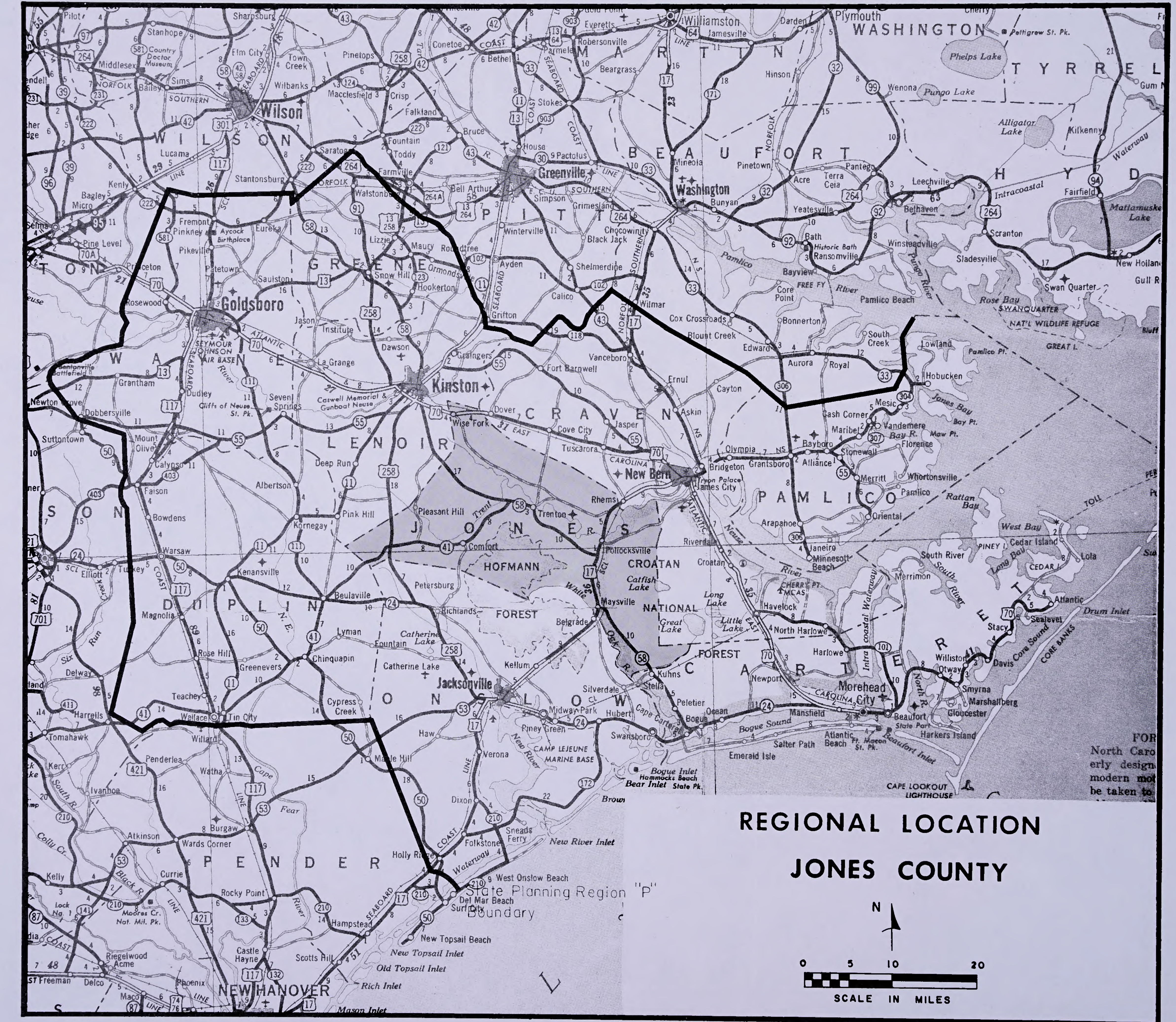
Illustration I



Until 1778, the settlements along the Trent were a part of Craven County. In 1778, however, the citizens along the Trent decided that the courthouse in New Bern was too far away and a commission was appointed from among them to lay out the boundaries of a new county and to pick a central and convenient place in the new county to build a courthouse, prison and stocks. The site picked by the commission to become the seat of the new county was to be Trent Town, or Trenton as it is known today. The new county, which before had been a part of Craven County, was named Jones in honor of Willie Jones of Halifax, an outstanding patriot and anti-Federalist leader during the early days of the republic.

The new County's strength lay primarily in its land and slaves. Towns in the County developed slowly and the real life of the people of Jones County centered around its huge riverside plantations. These estates were the pride of the region with some containing as many as 50,000 acres.

Cotton and corn, typical plantation crops, led agriculture production during the mid-1880's, with the production of oats, rye and wheat being of lesser significance. Records indicate that 1,150,208 pounds of cotton, 223,520 bushels of corn and 15,850 barrels of turpentine were produced in Jones County in the year 1850. Primarily because of agriculture production, Jones County was one of the richest counties, in terms of per capita income, in the United States, according to the census of 1860.

Prosperity suffered destruction during the Civil War when confederate and union troops marched across the County. Reconstruction days after the war were particularly violent because of the large numbers of freed slaves and the County experienced a slow recovery from the period of rule by carpetbaggers.

The building of the Atlantic Coast Line and Norfolk and Southern railroads in the late 1800's helped to boost land values in the County and make lumbering an important industry. It was also during this time that farmers in the County began to surrender cotton to the boll weevil and turn to tobacco as a main crop.

The 20th century for Jones County has been relatively uneventful compared to the two preceding centuries. The population of the County increased slowly until 1940 then spurted to a total of 11,004 in 1950. In the 1950's, the County began to experience a significant out-migration of its younger people. By 1970, the population of the County had decreased to a total of 9,779 and from all indications is still declining. Economically, the County has remained agriculturally oriented, with fewer but larger farms.

POPULATION AND ECONOMIC CHARACTERISTICS*

The emphasis of this study (Land Potential Study) is placed on physical factors which may influence or determine the future development of Jones County. However, it must be kept in mind that people are the reason for planning and therefore must be considered in preparing any plans for the future development of a community. Economic factors are closely related to changes in population structure and make-up and must also be considered if meaningful plans are to be drawn. It is primarily for these reasons that a section dealing with population and economic characteristics of the County is being included in the Land Potential Study.

GENERAL POPULATION CHARACTERISTICS AND TRENDS

In 1970, Jones County had a total population of 9,779. This figure represents 147 fewer people than in 1940 when the County's population was 9,926. In the past 30 years, not only has the population not increased but has actually decreased by a total of 147 people.

TABLE I

TOTAL POPULATIONS 1940 - 1970
JONES COUNTY, N. C.

1940	9,926
1950	11,004
1960	11,005
1970	9,779

As can be seen in Table I, the County's population between 1940 and 1950 increased by over 1000 people (1078). Between 1950 and 1960 there was essentially no change in the County's population. During the past decade, there has been a decrease of 1,226 persons, from 11,005 in 1960 to 9,779 in 1970, which represents a decline of over 11 per cent in the 10 year period. The State of North Carolina on the other hand, had an increase in population of 11.5 per cent during this same time span.

Examining in more detail the changes which took place in Jones County's population between 1960 and 1970, Table II indicates fewer children were born to women of child bearing age** and there was a very high rate of out-migration as the most logical explanation for the decline in population in these age groups between 1960 and 1970.

---

*Unless otherwise indicated, the information and data contained in this section was derived from the 1960 and 1970 U. S. Census of Population.

**Child bearing age is considered to be between the age of 15 and 49.

Other significant characteristics are revealed in Table II relating to change in the County's population structure between 1960 and 1970. For example, an increasing percentage of the County's total population is in the age groups 45-54, 55-64 and 65 and over. On the other hand, there is a significant decrease in the percentage of the County's total population in the 0-4 and 5-14 age group.

It is also interesting to note that in the 15-24 year age group of 1970 there were more people than in the same age group of 1970 and this age group (15-24) accounted for a larger percentage of the County's total population in 1970 than it did in 1960. This apparent anomally in the population structure is indicative of a yet unstable population at the time the 1970 census was taken and it is very probable that the County's total population has continued to decline since that time, particularly in the 15-24 year age group.

TABLE II

POPULATION BY AGE & SEX
JONES COUNTY
1960 1970

AGE GROUP	1960 Total Population 11,005				1970 Total Population 9,779			
	Male	% of Total	Female	% of Total	Male	% of Total	Female	% of Total
0-4	714	6.4	698	6.3	436	4.4	401	4.5
5-14	1,531	13.9	1,366	12.4	1,143	11.7	1,105	11.3
15-24	812	7.4	862	7.8	915	9.4	861	8.8
25-34	576	5.2	615	5.6	456	4.7	544	5.6
35-44	663	6.0	688	6.3	470	4.8	519	5.3
45-54	566	5.1	554	5.0	552	5.6	617	6.3
55-64	325	3.0	357	3.2	473	4.8	483	4.9
65 & Over	333	3.0	345	3.1	358	3.7	446	4.6
Total All Age Groups	5,520	50.2	5,485	49.8	4,803	49.1	4,976	50.9

Other indicators bear out the worse of suspicions as to what is happening to the population of Jones County. Natural increase, which is the number of births in excess of the number of deaths per year, has decreased from 22.5 per 1000 population in 1960 to 3.07 per 1000 population in

1969.* Public school enrollment in the County has dropped from 3,173 in 1960 to 2,414, in 1972, a decrease of 24 per cent in the 12 year period.** And, the median age*** of the County has risen from 21.2 in 1960 to 25.3 in 1970.

Illustration II graphically portrays the changes which occurred in the County's population structure between 1960 and 1970, and also gives the age and sex structure of the State's total population for comparison.

EDUCATIONAL CHARACTERISTICS

Education is an important channel for individuals to progress upward in our society. No other means is as accessible nor as promising for social improvement as is education. Today, and even more importantly in the future, one's position in the American society will depend on the amount of education and technical training he receives, and there is certainly no guarantee that one will not move downward in the social structure.

Educational attainment of the County's population was below that of the State as a whole both in 1960 and in 1970. For the State in 1960 the median number of school years completed for persons 25 years of age and older was 8.9 and for Jones County the median was 8.2. In 1970, both the State and the County's educational attainment increased by over a full school year with a median number of school years completed of 10.6 and 9.9 for the State and County respectively.

TABLE III

EDUCATIONAL ATTAINMENT

PLACE	MEDIAN NUMBER OF SCHOOL YEARS COMPLETED FOR PERSONS 25 AND OLDER	
	1960	1970
Jones County	8.2	9.9
North Carolina	8.9	10.6

Source: 1960 and 1970 Census of Population - Social & Economic Characteristics

Census information also indicated an increase from 15.9 per cent in 1960 to 31 per cent in 1970 for the County's population 25 and older which had graduated from high school.

---

*Profile, North Carolina Counties, State of North Carolina, Department of Administration, (August, 1970).

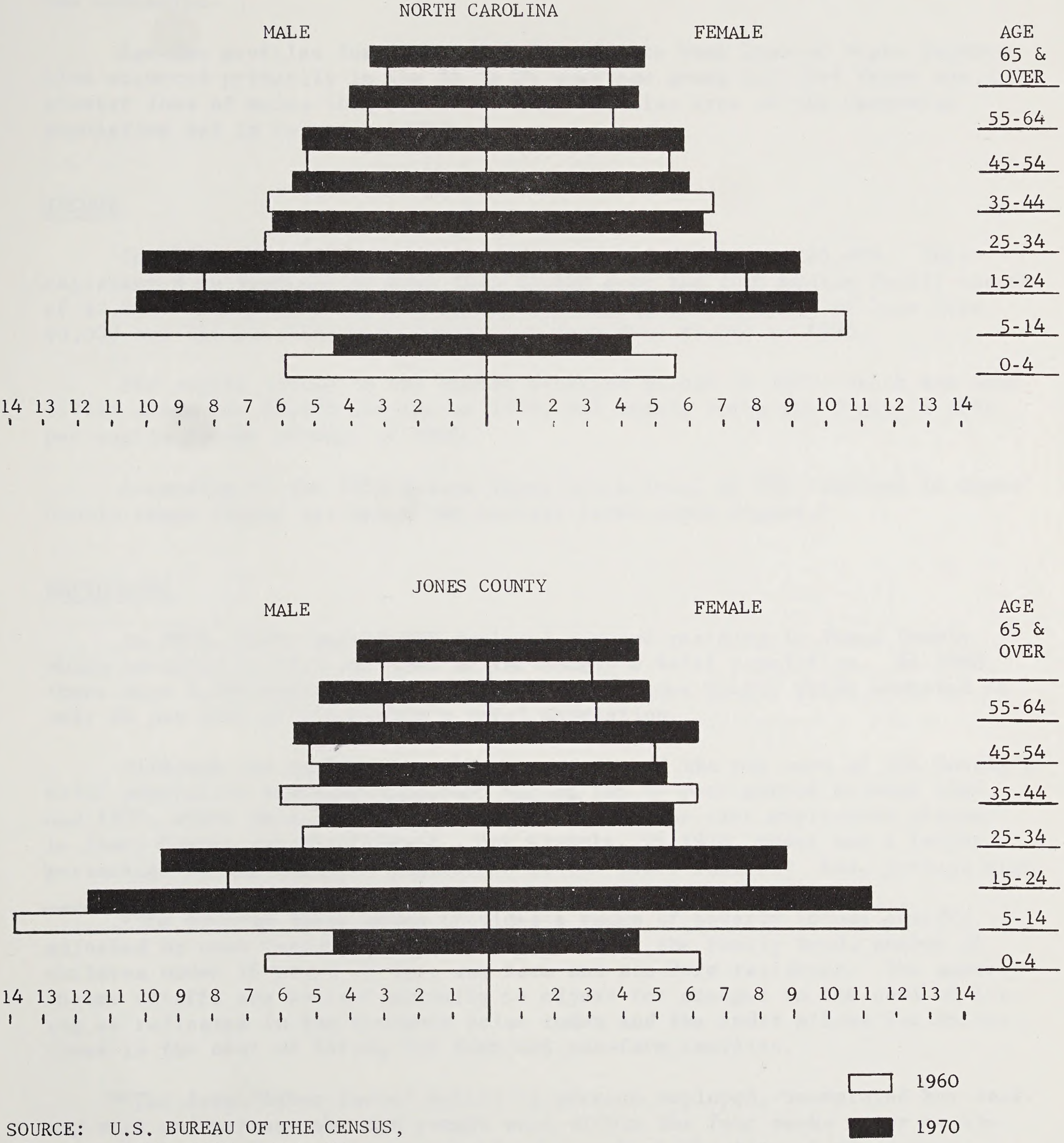
** Ibid.

***Median age is that age which divides the population distribution into two equal parts, one-half being older than the median age and one-half being younger.

ILLUSTRATION II

Percents of Total

POPULATION BY AGE AND SEX



SOURCE: U.S. BUREAU OF THE CENSUS,
CENSUS OF POPULATION, 1960 AND
CENSUS OF POPULATION, 1970

RACIAL CHARACTERISTICS

In 1960, 52.9 per cent (5,824) of the County's population was Caucasian and 47.1 per cent (5,181) was Negro. Although between 1960 and 1970 there was a decline in both the Negro and Caucasian population of the County, there was a greater loss of Negroes. Census data for 1970 indicates that 45.1 per cent (4,410) of the County's population was Negro and 54.9 per cent (5,369) was Caucasian.

Age-Sex profiles for 1960 and 1970 indicate that loss of Negro population occurred primarily in the 15 to 24 year age group and that there was a greater loss of males than females. This was also true of the Caucasian population but in lesser numbers.

INCOME

In 1970, the median family income in Jones County was $5,400. This represented an increase of more than $2,000 over the 1960 median family income of $2,238. There were 595 familes in the County with incomes of less than $3,000 and 148 families with incomes of less than $1,000 in 1970.

Per capita income in the County averaged $1,640 in 1970, which was very little above the $1,423 average of 1965, but nearly twice the County's 1959 per capita income average of $882.

According to the 1970 Census there was a total of 706 families in Jones County whose income was below the poverty level index figure.*

EMPLOYMENT

In 1970, there were 3,393 employed persons residing in Jones County which amounted to 34.6 per cent of the County's total population. In 1960, there were 3,186 employed persons residing in Jones County which amounted to only 29 per cent of the County's total population.

Although the number of employed persons and the per cent of the County's total population employed increased during the 10 year period between 1960 and 1970, other data have to be examined before the true employment picture in Jones County can be realized. For example, in 1970, there was a larger percentage of the County's population in the labor force.** And, perhaps most significantly, in 1960, there were only 908 employed residents of Jones County working outside the County (29.3 per cent of all reported workers in the County) while in 1970 there were 1,484 employed residents working outside the County (48.4 per cent of all reported workers in County). This means that in 1970 there were actually 605 fewer jobs in Jones County than in 1960.

---

*The poverty level index provides a range of poverty income cutoffs adjusted by such factors as family size, sex of the family head, number of children under 18 years of age, and farm and non-farm residence. The poverty income cutoffs are revised annually to adjust for changes in the cost of living as reflected in the consumer price index and the index allows for differences in the cost of living for farm and non-farm families.

**The term "labor force" refers to persons employed, unemployed but seeking work and persons who had sought work within the four weeks prior to the time of the census and were available for work at the time of the census.

Unemployment rate in the County increased from 6.1 per cent in 1962 to 6.9 per cent in 1970.*

RETAIL SALES

Gross retail sales in the County have increased from $4,577,577 in 1960-61 to $9,604,791 in 1971-72.** This represents an increase of over 200 per cent in the 11 year period. This fact is particularly significant when one considers that Kinston, New Bern, and Jacksonville, three of the Regions' four major retail centers virtually surround the County.

The largest increases in retail sales in the County have occurred in the sale of food and automotive related sales while there have actually been declines in the sale of apparel and furniture.

POPULATION PROJECTIONS

Basically, population projections involve projecting the past trends of the elements of population change. Essentially, these elements are: births, deaths, and migration. Births and deaths are usually considered together with the net difference representing the result of natural occurrences within the population. Since total births are usually greater than total deaths, the difference normally has an increasing effect on the population. Migration can have either an increasing or decreasing effect on the population, depending on the net difference of in-migrants and out-migrants. It was noted previously that in Jones County, natural increase (number of births in excess of number of deaths) had declined sharply between 1960 and 1970, and there was considerable out-migration of population in that time period.

It should be kept in mind that the elements of population change are not causes in themselves but rather effects. The actual causes of population change are usually not as apparent. Perhaps the most obvious factor in causing population change is economic conditions, particularly employment opportunity. Factors such as educational opportunity, recreation facilities and friendliness of a community and other factors certainly influence population change, but the extent which these factors effect change in the population is difficult to measure.

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*Region P Multi-County Statistical Data, Neuse River Regional Planning and Development Council, (offset, May, 1972).

**Unpublished data, State of North Carolina, Local Government Commission, Raleigh, N. C., 1972.

Two population projections for Jones County are given in Table IV. Projection A* is based on an extension of trends which existed in Jones County between 1960 and 1970. Projection B**, in addition to past trends, attempts to take into consideration anticipated overall economic conditions within the nine county State Planning Region P and other related factors.

TABLE IV

POPULATION PROJECTIONS

JONES COUNTY

	Actual 1970	Projected 1980	Projected 1990
Projection A*	9,779	8,350	6,900
Projection B**	9,779	9,500	10,300

The above projections establish a range of expected population over the next twenty years in Jones County. Any population figure projected more than 3 or 4 years into the future would have to have a wide margin of error. The above projections do not take into consideration any drastic changes in economic conditions but are based primarily on past trends.

The abnormally wide range in projected population over the next 20 years is due primarily to the "unstability" of the population between 1960 and 1970 on which the projections were based. The projections should be revised periodically, particularly in the event a major employing industry is located in the County.

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*Projection prepared by Division of Community Services, Department of Natural and Economic Resources, State of North Carolina.

**Projection prepared by State Planning Division, Department of Administration, State of North Carolina.

PHYSICAL CHARACTERISTICS

In this section, physical factors which may influence or determine the future development of Jones County are analyzed with particular attention given to the soil suitability for various types of development.

CLIMATE*

Climatic conditions in Jones County are comparatively mild and comfortable year-round with extreme temperatures rarely experienced. The Atlantic Ocean, which is only 8 miles from the southeast end of the County, tends to modify weather conditions somewhat in the eastern half of the County, causing slightly more precipitation and slight moderation of temperatures in both winter and summer.

Average annual precipitation in the County measures approximately 51 inches with July, August, and September normally receiving more than other months of the year. Almost all precipitation is in the form of rain with very little and infrequent snowfall.

Average annual temperature in Jones County is approximately 62° F with highest temperatures in the summer rising to 106° F and lowest temperatures in winter dropping to 0° F.

The summer and winter extreme temperatures are rarely experienced, however, with the average July temperature being 80° F and the average January temperature being 45° F. On the average, killing frosts do not occur in the County between March 24 and November 5. Temperatures below 28°F. normally do not occur between March 12 and November 16.

Prevailing winds in Jones County are out of the southwest in March through August, the northeast in September and October, and the north from November through February.

The climate of Jones County is favorable for almost all field crops in the summer and is mild enough in the winter for cover crops, hardy vegetables and livestock. The mild winter climate of the County is also very suitable for outdoor recreation activities.

Illustration III gives average monthly precipitation and temperatures for the cities of Kinston and New Bern. The data for Kinston would be most representative of the western half of Jones County while the New Bern data would more closely approximate conditions in the eastern half of the County.

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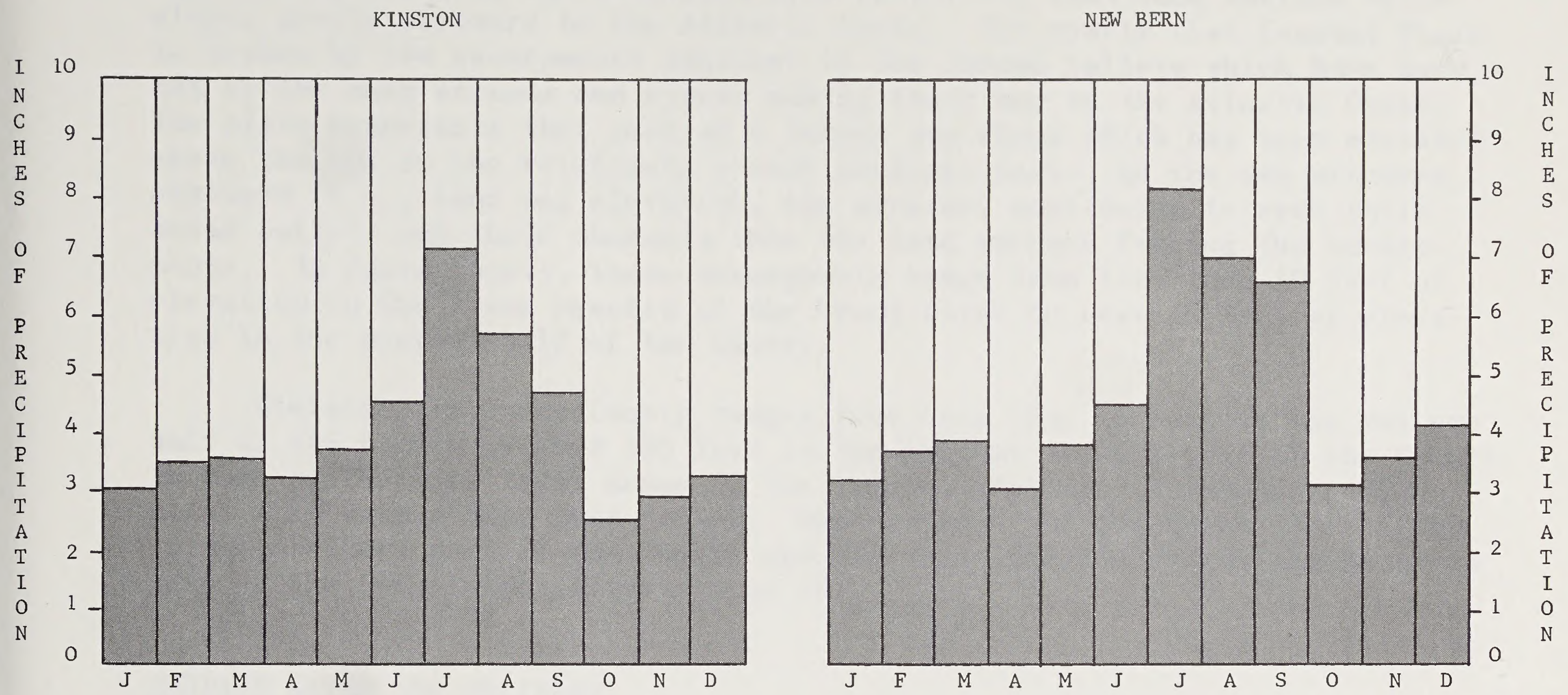
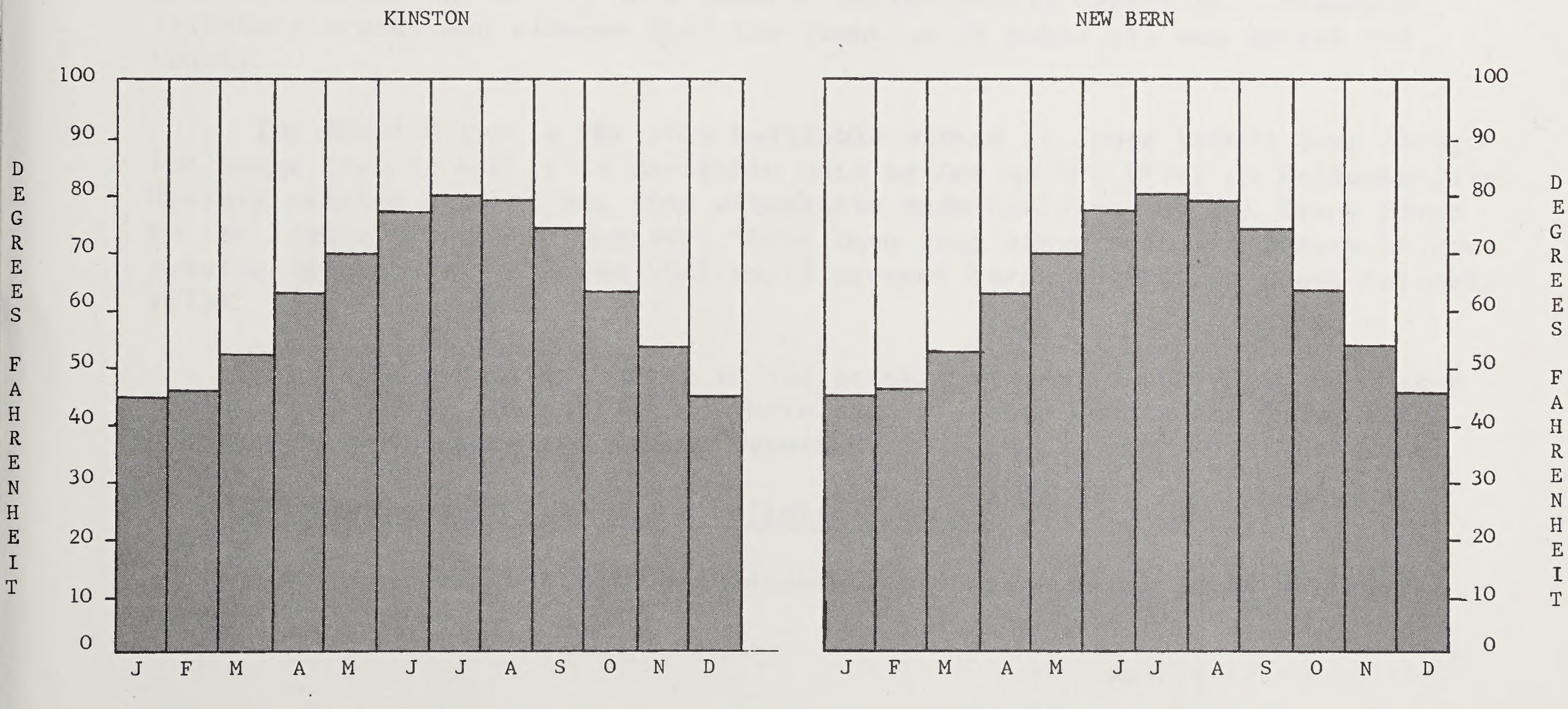
*Detailed climatic data is not available for any station in Jones County. However, records are available for Kinston and New Bern which are representative of most areas of Jones County and will be used for specific data.

Illustration III

AVERAGE MONTHLY PRECIPITATION



AVERAGE MONTHLY TEMPERATURES



TOPOGRAPHY

Jones County is a part of the Coastal Plain physiographic province. The Coastal Plain is characterized by a relatively flat land surface which slopes gently eastward to the Atlantic Ocean. The nearly flat Coastal Plain is broken by low escarpments adjacent to the stream valleys which have been cut by the many streams and rivers making their way to the Atlantic Ocean. The plain represents that part of a former sea floor which has been elevated above the sea in the relatively recent geologic past. As the sea withdrew eastward (i.e., land was elevated), the streams, continuing to seek their ocean outlet, cut their channels into the land surface forming the escarpments. In Jones County, these escarpments range from less than 10 feet of elevation in the lower reaches of the Trent River to over 40 feet of elevation in the western half of the County.

Elevation in Jones County ranges from less than 10 feet in the eastern half of the County to over 125 feet in the extreme western part of the County. In some of the more level areas of the County, drainage is impeded to the point that swamps have been formed. Most notable are the Great Dover Swamp in the northern part of the County and the White Oak Pocosin in the southern part of the County (see Illustration IV).

SURFACE WATER AND DRAINAGE

Jones County lies within two eastern North Carolina river basins, the Neuse River Basin and the White Oak River Basin. The Neuse River Basin is by far the most extensive and over 80 per cent of the County ultimately drains into the Neuse River (see Illustration IV).

The two major streams in Jones County are the Trent River and the White Oak River. The Trent River, which is a major tributary of the Neuse River, has its headwaters near the southwest boundary of the County and from there meanders across the County in a general northeasterly direction. Numerous tributary creeks and streams feed the Trent as it makes its way across the County.

The Trent River is the only navigable stream in Jones County deep enough for barge traffic and it is navigable only as far up the river as Pollocksville. History relates that at one time steamboats made their way up the Trent River to the Town of Trenton. However, there have long since been stationary bridges constructed across the River that would prevent barge navigation above Pollocksville.

The White Oak River, which is the primary stream in the White Oak River Basin, flows along the extreme southern edge of Jones County and forms the boundary between Jones and Onslow Counties.

Stream Characteristics and Pollution Factors

Almost all surface waters in Jones County are considered as having "swamp water" characteristics.* Swamp waters are characterized by high coloration, low pH and dissolved oxygen due to decay of organic substances, and sluggish flow.

Tables V and VI, give a sample chemical analysis of the waters of the Trent River at two different locations in the County (see Illustration IV, for locations from which samples were taken).

To some degree, stream pollution in Jones County is the result of natural occurrences and processes. Slow moving water, swampy conditions in some instances and a high rate of organic decay are all contributing factors to the stream pollution problem.

Man also has contributed to the problem of stream pollution in the County. Marginal farm lands which are normally too wet for agriculture production have been artificially drained in some instances and subsequently fertilized and used for crop land. Precipitation run-off from these areas often add to the stream nutrients causing an overgrowth of plant organisms, particularly algae.

Perhaps the most significant source of man-made pollution in the County is the sewer effluent from the Town of Trenton, which is discharged into the Trent River untreated. It is estimated that from 20,000 to 40,000 gallons of untreated effluent is discharged into the river daily. Although, as is noted in a subsequent section of this report, (see Sewer Facilities, page 56), the Town of Trenton has had plans drawn and has submitted a grant application for construction of a sewer aystem including treatment facilities; it will likely be another year or possibly longer before construction is completed.

Stream Classification

Rivers and streams of North Carolina are classified by the N. C. Department of Natural and Economic Resources, Office of Water and Air Resources according to their existing or contemplated best usage. The classifications are based on extensive studies of stream characteristics and established water quality standards.

Illustration V indicates the classification of surface waters in Jones County as established by the Office of Water and Air Resources. As can be seen in Illustration V, rivers and streams in Jones County are all classified as "C" or "D." The "SA" classification of White Oak River, although indicated in Illustration V, is actually not in Jones County, but rather in Onslow County.

The following is a brief explanation of the classification system as to best usage and conditions related to best usage.**

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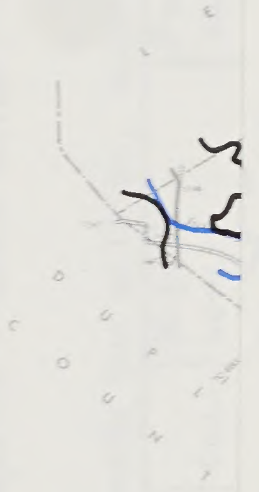
*Pollution Survey Report No. 7, State Stream Sanitation Committee, N.C. State Board of Health, Division of Water Pollution Control, (Raleigh, 1959).

**"Water quality standards" applicable to each class are omitted here because of length and technical detail; however, the applicable water quality standards for each classification can be obtained from the Office of Water and Air Resources, Raleigh, N. C.



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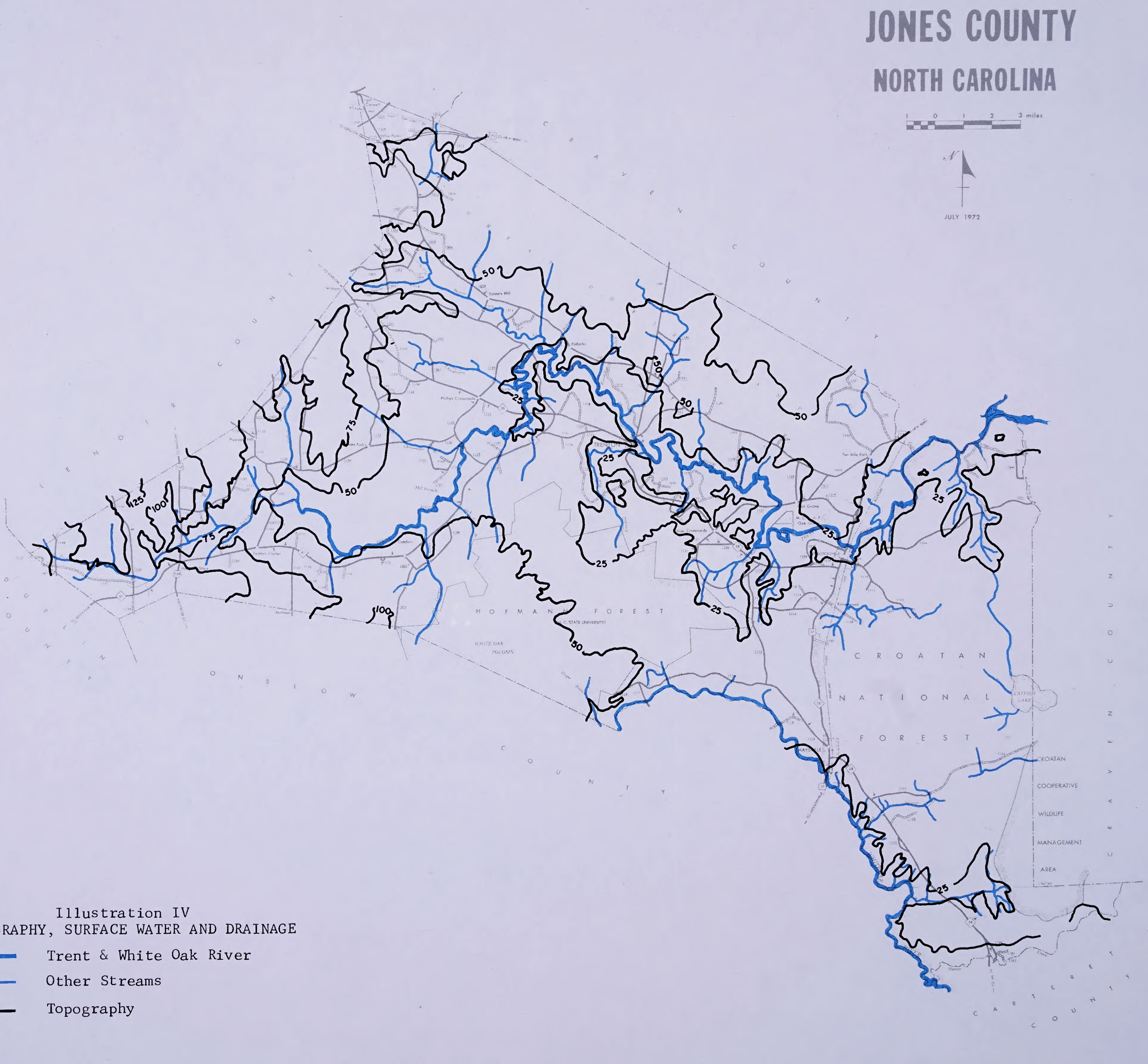

Illustration IV
TOPOGRAPHY, SURFACE WATER AND DRAINAGE

TABLE V PART 1

CHEMICAL ANALYSIS - TRENT RIVER - SAMPLE LOCATION A

Chemical analyses, in parts per million, water year October 1966 to September 1967

Date of Collection	Mean Discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (S04)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Phosphate (PO_4)
Apr. 10, 1967	78.1	1.2	0.03	21	1.4	4.6	0.9	58	7.6	7.4	0.1	0.5	0.00
Aug. 23, 1967	110	6.9	.20	15	1.4	3.3	.5	34	8.2	5.2	.6	1.5	.03

TABLE V PART 2

Dissolved solids		Hardness as $CaCO_3$		Specific conductance (micromhos at 25°C	ph	Color
Residue at 180°C	Calculated	Calcium magnesium	Non-Carbonate			
	74	59	12	140	7.1	40
	60	43	15	97	6.4	120

SOURCE: Water Resources Data for North Carolina, Part 2 Water Quality Records U. S. Department of Interior, Geological Survey.

TABLE VI PART 1

CHEMICAL ANALYSIS - TRENT RIVER - SAMPLE LOCATION B

Chemical analyses, in parts per million, October 1966 to May 1967

Date of Collection	Mean Discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Cal-cium (Ca)	Mag-ne-sium (Mg)	Sodium (Na)	Po-tas-sium (K)	Bicar-bonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluo-ride (F)	Ni-trate (NO_3)	Phos-phate (PO_4)
Oct. 1-20, 1966		10	0.22	28	1.2	6.0	1.1	79	11	8.0	0.2	0.6	
May 1-31, 1967		7.3	.20	25	1.8	5.0	1.0	70	11	7.5	.1	1.1	

TABLE VI PART 2

Dissolved solids		Hardness as $CaCO_3$		Specific conduct-ance (micro-mhos at 25°C	ph	Col-or
Residue at 180°C	Cal-cu-lated	Calcium magne-sium	Non-Carbon-ate			
126	105	76	11	167	7.7	90
110	94	69	12	163	7.4	60

SOURCE: Water Resources Data for North Carolina, Part 2 Water Quality Records
U. S. Department of Interior, Geological Survey

1. Class A-I Waters:

a. Best Usage of Waters: Source of water supply for drinking, culinary, or food processing purposes or any other usage requiring water of lower quality.

b. Conditions Related to Best Usage: This class is intended primarily for waters having watersheds which are uninhabited and otherwise protected as required by the State Board of Health and which require only approved disinfection, with additional treatment when necessary to remove naturally present impurities, in order to meet the "Public Health Service Drinking Water Standards" and will be considered safe for drinking, culinary, and food-processing purposes.

2. Class A-II Waters

a. Best Usage of Waters: Source of water supply for drinking, culinary or food-processing and any other best usage requiring waters of lower quality.

b. Conditions Related to Best Usage: The waters, if subjected to approved treatment equal to coagulation, sedimentation, filtration and disinfection with additional treatment if necessary to remove naturally present impurities, will meet the "Public Health Service Drinking Water Standards" and will be considered safe for drinking, culinary or food-processing purposes.

3. Class B Waters

a. Best Usage of Waters: Bathing and any other best usage except as source of water supply for drinking, culinary or food-processing purposes.

b. Conditions Related to Best Usage: The waters, under proper sanitary supervision by the controlling health authorities, will meet accepted standards of water quality for outdoor bathing places and will be considered safe and satisfactory for bathing purposes. Also, suitable for other uses requiring waters of lower quality.

4. Class C Waters

a. Best Usage of Waters: Fishing, boating, wading and any other usage except for bathing or as a source of water supply for drinking, culinary or food-processing purposes.

b. Conditions Related to Best Usage: The waters will be suitable for fish and wildlife propagation. Also, suitable for boating, wading, and other uses requiring waters of lower quality.

5. Class D Waters

a. Best Usage of Waters: Agriculture, industrial cooling and process water supply, fish survival, navigation, and any other usage, except fishing, bathing, or as a source of water supply for drinking, culinary or food processing purposes.

b. Conditions Related to Best Usage: The waters without treatment and except for natural impurities which may be present therein will be suitable for agricultural uses and will permit fish survival. The waters will also be usable after special treatment by the user as may be needed under each particular circumstance for industrial purposes, including cooling and process waters.

GROUND WATER*

"Jones County is endowed with an abundant supply of ground water that can be developed at relatively low cost. Most of the water supplies come from well points in the sands of the surficial deposits. Some wells have been drilled through the surficial deposits to draw water from the Castle Hayne limestone, and in the western part of the County a few wells obtain water from sands in the Peedee formation.

The topography in the County is so flat that the water table is within 15 feet of the land surface almost everywhere. As a result, attempts to get water from well points driven into sand below the water table have almost always been successful. As much as 10 gallons of water a minute, enough for normal domestic use, can generally be pumped from a well point, but in most cases the water contains enough free carbon dioxide to make it slightly corrosive.

Little is known about the water-bearing character of the Castle Hayne limestone in the western half of the County. Some wells 25 to 60 feet deep west of Trenton draw water from the limestone, but none of these wells has tested the capacity of the limestone to yield water. East of Trenton it is highly productive, and yields of 20 gallons a minute per foot of drawdown are normal.

Water in the limestone occurs under water-table or semi-artesian conditions, chiefly because of the relative thinness and permeable nature of the surficial deposits and because of the entrenchment of the Trent River into the limestone. The water level in wells that tap the limestone is approximately the same as the water table in the surficial deposits.

GEOLOGY

Most of Jones County is mantled by undifferentiated surficial deposits of sand and clay of pleistocene age and insoluable residue left by solution of the Yorktown formation. Underlying the surficial deposits in the County are the Castle Hayne and Peedee formations. The Castle Hayne formation which immediately underlies most of the County consists of fossiliferous limestone of varying purity and hardness, and some interbedded sand. The Castle Hayne

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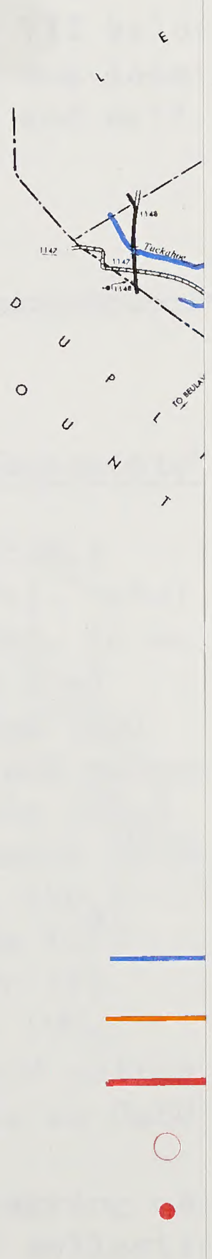
*Information and data in this section taken from: Ground-Water Bulletin No. 1, Division of Ground Water, North Carolina Department of Water Resources (Raleigh, 1960).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JONES COUNTY

NORTH CAROLINA

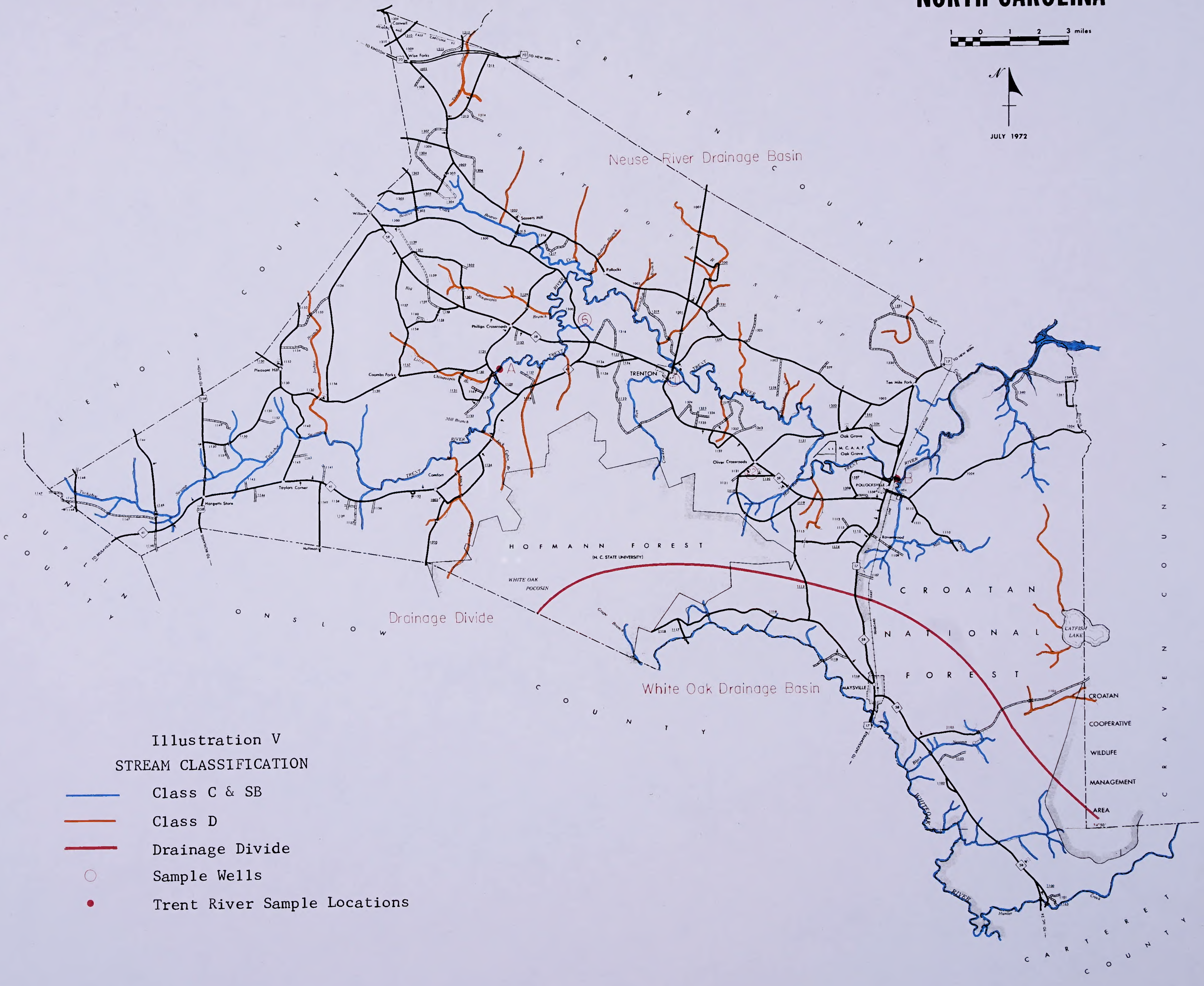

Illustration V

STREAM CLASSIFICATION

Class C & SB

Class D

Drainage Divide

○ Sample Wells

● Trent River Sample Locations

limestone normally is soft, cream-colored and marly. The Peedee formation which underlies the Castle Hayne consists of dark clays interbedded and interlaminated with fine to medium-grained sands and a few thin limestone beds. Fossil shells are common throughout the formation. Both formations dip gently toward the Atlantic Ocean.

In the extreme west part of Jones County streams have cut into the top of the Peedee formation, but toward the east the Peedee is progressively more deeply buried. The channel of the Trent River is entrenched in the limestone of the Castle Hayne throughout its course except in the extreme western part of the County where it has cut through the Castle Hayne and into the Peedee formation.

The water bearing characteristics of these formations are discussed in the "Ground Water" section of this report.

The Peedee formation lies close enough to the surface in the area west of Trenton to be reached by some drilled wells. At depths greater than 50 feet in the extreme western part of the County and at depths greater than 100 feet at Trenton, wells tap sands of the Peedee. As an aquifer it presumably is similar to the Peedee at Richlands, Onslow County. Flowing wells from the Peedee formation can be had in most of the lowland areas of the County."

Table VII below gives a chemical analysis of three wells in Jones County. Well No. 6 was located three miles west of Trenton, well No. 11 was located in Trenton and well No. 22 was located 4 miles west of Pollocksville.

TABLE VII

Components**	Analyses Parts Per Million		
	Well No. 6*	Well No. 11*	Well No. 22*
Silca (SiO_2)	24	.....	.....
Iron (Fe), total	2.2	.03	
Iron (Fe), in solution	.00	.....	.....
Calcium (Ca)	69	.....	46
Magnesium (Mg)	3.8	.....	.9
Sodium and potassium (Na + K)	8.4	.....	3.5
Carbonate (CO_3)	0	.....	0
Bicarbonate (HCO_3)	242	175	136
Sulfate (SO_4)	.6	.....	4.0
Chloride (Cl)	5.5	7	6.2
Fluoride (F)	.0	.....	.2
Nitrate (NO_3)	.4	.....	.....
Dissolved solids	242	.....	.....
Hardness as $CaCO_3$	188	138	118
pH	7.3	7.5	6.9
Water-bearing material	Sand	Sand	Sand
Date of collection	6/15/55	8/1/41	11/13/54

*See Text for well locations and also Illustration V.
**Analyzed by the Quality of Water Branch.
U. S. Geological Survey.

SOILS*

Basic to any long-range planning program is a knowledge of the soils, their productive capabilities and their suitability for supporting various urban land uses. This section provides interpretations of the soils of Jones County with respect to both agricultural productivity and suitability for selected urban land uses.

For purposes of interpretation, the soils of Jones County were grouped into six interpretive groups. These groupings were based on similarity of soil characteristics and degrees of limitations the soils have for specific uses.

Caution should be exercised in using this information for detailed or small area interpretations. The scale on which the soil resources were recorded is such that it is not possible to evaluate small tracts of land in any one geographic area of the County. As an example, an area on the map of 15,000 acre size may be listed as "unsuitable" for residential development without public sewer; however, within this area there may be several hundred acres of soils that would be suitable for residential development with septic tank disposal systems. These interpretive maps should be used as guides to evaluate the dominant suitability of land areas for specific land use. A soil survey of medium or high intensity would be required to determine the use suitability for small tracts of land. The scale limitations of the soil survey used for these interpretations does not, however, eliminate its usefulness for planning and implementation of a sound land use policy for the County. For example, if the County Planning Board was interested in locating sites for sanitary landfills or other uses, or if an industry was interested in locating a suitable development site, then the chances for finding satisfactory sites would be significantly higher in soil areas designated as "suitable" than they would be in soil areas designated as "unsuitable."

Soil ratings are based on the characteristics of the soils and related costs of developing the land area for a specific use. Any soil area may be developed for any use if the capital is available to perform the necessary modifications of the land area in question. The ratings used in this report are listed and defined as follows:

Suitable - These areas may be developed for the specified use at a minimum cost to the developer. There are normally no special precautions that need to be taken in the use of the land area.

Marginal - To develop these land areas for the specified use requires the expenditure of additional capital to correct soil limitations. To obtain a satisfactory site would require: (1) modification of the soil characteristics and/or (2) special engineering designs.

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*Information and interpretations in this section prepared by Mr. Louis E. Aull, Agronomy Specialist (Non-farm Land Use), Agriculture Extension Service, North Carolina State University, Raleigh, North Carolina. Interpretations were based on Soil Survey of Jones County, issued March, 1938, by the U. S. Department of Agriculture.

Unsuitable - To develop these soil areas for specified land use would require extensive and costly modifications of the soils and the land area. Development of these areas should only be attempted after on-site soils and engineering investigations and recommendations.

The soil interpretations do not provide the necessary information for any industrial, commercial, or residential structures that impose heavy loads on the soil. Engineering tests and designs are essential in using soils for these purposes.

Agriculture Interpretations

Group 1 - (Nf) Norfolk fine sandy loam

Agriculture Crop Production - These are well drained soils with fine sandy loam subsoils. These soils are well adapted for all crops and under proper management will produce high yields.

Estimated per acre yield potentials for some major crops are:

Corn 110 bu., soybeans 40 bu., tobacco 3000 lbs., wheat 60 bu., Coastal bermuda 10.3 tons.

Forestry - Soils with high potential productivity and no serious management problems. Site Index: Loblolly pine = 86; Longleaf pine = 68; Slash pine = 86.

Group 2 - (Ns) Norfolk fine sand
(Ka) Kalmia fine sand
(Nf) Norfolk fine sandy loam deep phase*

These are sandy soils and have two major limitations in the production of general crops: (1) They have a low water holding capacity and are susceptible to drough. (2) Plant nutrients leach readily from these soils and nutrient deficiencies are serious during periods of excessive rainfall.

Certain specialized crops, such as Coastal Bermuda and some fruit and truck crops, are fairly well adapted to these soils.

If irrigated and nutrients are applied for adequate fertility levels, these soils will produce moderate yields of adapted crops.

Estimated yield potentials for some major crops (without irrigation) are:
Corn 55 bu., soybeans 20 bu., tobacco 1700 lbs., wheat 25 bu., Coastal Bermuda 7 tons.

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*Soil areas classed as Norfolk sandy loam, deep phase, have sandy clay loam subsoils at 30 to 40 inches. Yields on these soils will generally be 10 to 15 per cent higher than those listed above.

Forestry - Sandy soils with moderate productivity. Problems with seedling mortality and some equipment restructions. Site Index: Loblolly pine 70-80; Slash pine 70-80; Longleaf pine 60-70.

Group 3 - (Cv) Craven very fine sandy loam
(Df) Dunbar fine sandy loam
(Le) Lenoir very fine sandy loam
(Of) Onslow fine sandy loam

These are moderately well to somewhat poorly drained soils. The surface soils are fine sandy loams or sandy loams and the subsoils are clay and sandy clay.

The major limitations in agriculture use of these soils is that of drainage and of restriction of water, air, and root penetration into the subsoil. Drainage is essential in order to obtain satisfactory yields of most crops grown. Pasture and forage require less intensive drainage systems than crops like tobacco and corn.

When adequately drained estimated yield potentials for major crops are:

Corn 80-90 bu., soybeans 30-45 bu.

Forestry - Soils with moderately high to high potential productivity. Minor problems of seedling mortality and equipment restrictions. Site Index: Loblolly pine 80-90; Slash pine 80-90. (Also well adapted to certain hardwood species.)

Group 4 - (Ba) Bayboro loam
(Bv) Bladen very fine sandy loam
(Pf) Portsmouth fine sandy loam
(Pm) Portsmouth loam

These are poorly drained soils with loam surface soils and clayey subsoils. The major limitation in the agricultural use of these soils is drainage. They are wet and are only suited for forest and a very limited number of specialized crops unless drainage systems are installed. They are good agricultural soils when drained. Estimated yield potentials for major crops grown on these soils after draining are:

Corn 85-100 bu., soybeans 40-50 bu., wheat 40-50 bu.

Forestry - Wet soils with high to very high potential productivity. Severe problems with equipment and seedling mortality unless areas have adequate surface drainage. Site Index = Loblolly pine 95-100; Slash pine 95-100. (Also well adapted to certain hardwood species.)

Group 5 - (Ls) Leon sand*
(Pd) Portsmough fine sand

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*The Leon soils have an organic pan at 18 to 32 inches and are frequently used for blueberry production.

These are poorly drained sands and are poorly suited for agricultural use.

If water control measures are used then fair yields of corn, cabbage, potatoes and blueberries may be produced.

Forestry - Wet sandy soils with moderate to moderately high potential productivity. Severe to moderate equipment restrictions and problems with seedling mortality. Site Index: Loblolly pine 74-80; Slash pine 74-80; Longleaf pine 65.

Group 6 - (Pk) Pamlico muck
(Sw) Swamp*

These are poorly drained organic and mineral soils.

They are poorly suited for agriculture, but with adequate water control measures may be used for corn, soybeans, specialized truck crops and pasture. Without water control they are best suited to woodland and wildlife.

Forestry - Very wet soils with variable production potential. Severe problems with seedling mortality and severe equipment limitations. Site Index - too variable to tabulate.

Non-Agricultural (Urban) Interpretations

GROUP 1 - (Nf) Norfolk fine sandy loam

Well drained soils with good surface and sub-surface drainage. Sandy surface soils, good percolation rates in the subsoils and with a seasonal high water table below five feet.

A. Residential Development

Suitable - Soil characteristics are favorable for construction of residences. Good soil material for foundations, streets, carports, driveways, etc. Good soils for on-lot (septic tanks) sewage disposal. If excavations (basements, etc.) are more than five feet deep on-site investigations should be made to determine depth to water table.

Suggested minimum lot sizes for residences using septic tanks and filter fields = 20,000 sq. ft.

B. Industrial Sites

Suitable - Soil characteristics are favorable for development of industrial and commercial uses. Good soil material for buildings and appurtenances and no water problems in the upper five feet of the soil. Landscaping and maintenance of landscaped areas present no problems.

C. Recreation

Suitable - Excellent soil characteristics for development and maintenance of all recreational activities. There are no serious problems of trafficability or wetness and all season use of these areas for recreation would be practical.

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*In addition to wetness, these soil areas are subject to frequent flooding.

D. Sanitary Land Fills

Suitable - Good soil characteristics for area and trench type sanitary land fills. Soils have good percolation and filtering qualities. For trench type fields the depth to seasonal high water table should be checked to safeguard against possible ground water pollution.

GROUP 2 - (Nfs) Norfolk fine sand
(Ka) Kalmia fine sand
(Nf) Norfolk fine sandy loam deep phase*

Excessively drained soils with sandy surface soils and sandy subsurface soils. Soils with rapid percolation rates and a low filtering capacity. Seasonal high water table is below five feet.

A. Residential Development

Suitable - These sandy soils are satisfactory for residential development. Some precautions should be taken in the stabilization of the sandy material under foundations, streets, etc. Landscaping and maintenance of landscaped areas require an understanding of thedry nature of the soils and the high potential for leaching of certain plant nutrients. These conditions can be overcome by proper fertilization and irrigation. Where on-lot (septic tanks) sewage disposal is to be used, precautions should be taken to guard against pollution of wells, reservoirs or ground water. Underground construction would be practical but on-site investigations should be made to determine depth to seasonal high water tables.

Suggested minimum lot sizes for residences using septic tanks:

30,000 sq. ft. (with public water system)

40,000 sq. ft. (with individual well)

B. Industrial Sites

Suitable - Satisfactory soil characteristics for industrial and commercial development. The same limitations and hazards discussed under A. (Residential Development) above are applicable.

C. Recreation

Suitable to Marginal - With irrigation facilities these soils are well adapted to certain kinds of recreational activities (golf courses, etc.). Because of the sandy, dry, characteristics of the soil the areas have problems in trafficability, wind erosion or sand blowing, and poor stability for camp sites (tent pegs and stakes). Maintenance of many types of vegetation requires good management in fertilization and irrigation practices.

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*Soil areas identified as Norfolk fine sandy loam, deep phase are generally suitable for septic tanks and filter fields and for sanitary land fills.

D. Sanitary Land Fills

Marginal - The low filtering ability of the soils is conducive to serious pollution of any close water resource. A careful evaluation of the site should be made beforeuse for either area or trench type sanitary land fill.

GROUP 3 - (Cv) Craven very fine sandy loam
(Df) Dunbar fine sandy loam
(Le) Lenoir very fine sandy loam
(Of) Onslow fine sandy loam

These soils have seasonal high water tables within 18 to 12 inches of the surface. The sub-surface horizons have moderately slow to slow percolation rates. Wetness during certain seasons of the year and the percolation rates of the sub-surface layer are major limitations in urban use of these soil areas.

A. Residential Development

Marginal - Drainage of these soils is essential before using as residential sites. Because of high water tables and slow percolation rates, foundations and filter fields for septic tanks are more difficult to install and maintain. Before developing, intensive drainage systems should be installed and location of septic tank and filter fields should be a minimum of 20 feet from any drain tile or ditch. Size of septic tank filter field should be increased 25% over normal minimum required sizes. These soils are not suitable for basement or underground construction unless intensive drainage and water proofing is used.

Suggested minimum lot size = 40,000 + sq. ft.

These areas of soils are adapted to "estate" type of residential development (3 to 10 acre sites). In many of these soils are small areas of land that would be suitable for a home site and surrounding land area would be satisfactory for lawns, garden, pasture, etc. Simple drainage systems should be installed to provide surface drainage, however.

B. Industrial Sites

Marginal - Drainage of site prior to development is essential. With adequate drainage and the maintenance of drainage system satisfactory sites may be developed.

C. Recreation

Marginal - The installation, and costs involved, of drainage of these soils would be a major limitation in using these soils for most recreation uses. Without drainage, these soils are not suitable except for short periods of time.

D. Sanitary Land Fills

Unsuitable - The high water table and slow percolation rates are major limitations of these soils. Pollution of underground water would be a severe hazard.

GROUP 4 - (Ba) Bayboro loam
(By) Bladen very fine sandy loam
(Pf) Portsmouth fine sandy loam
(Pm) Portsmouth loam

Soils with water table on or near the surface for long periods of time. The sub-surface horizons have moderate to slow percolation rates.

A. Residential Development

Unsuitable - High water tables and moderate to slow percolation rates would impose very severe limitations. Intensive and expensive drainage systems normally will not eliminate seasonal wetness that cause problems to foundations, streets, driveways and septic tanks and filter fields. The development of satisfactory residential sites on these soils requires costly modifications of the site.

In many of these soil areas an "estate" type of residential development would be feasible (3 to 10 acre sites). This would require an on-site evaluation to locate the better soil areas and drainage of the estate to remove surface water and permit establishment of suitable plants for lawns, gardens, grazing, etc.

B. Industrial Sites

Marginal - If no waste disposal on site is required then satisfactory industrial sites may be developed through drainage and engineering design for buildings, streets, parking areas, etc. With adequate drainage, landscaping and maintenance of grounds is feasible.

C. Recreation

Marginal - Recreation uses would be dependent upon adequate drainage for removal of surface and sub-surface water. Trafficability is poor but with drainage it would be possible to establish and maintain good vegetation.

D. Sanitary Land Fills

Unsuitable - The high water table and unfavorable soil characteristics would impose very severe limitations in the use of these soils for area or trench type sanitary land fills.

GROUP 5 - (Ls) Leon sand
(Pd) Portsmouth fine sand

Poorly drained sands with water table on or near the surface for long periods of time. The subsoils are sandy with rapid percolation rates.

A. Residential Development

Unsuitable - High water table and the sandy characteristics of the soil are very severe limitations in using these soils for residences. Drainage of these soils would be expensive and drainage systems difficult to maintain. Leon soils have organic pans that function poorly as effluent filter fields and the Portsmouth soils have a low filtering capacity in effluent disposal. Development of these sites for residences would require major modification of the soil and landscape.

In many of these soil areas an "estate" type of residential development would be feasible (3 to 10 acre sites). This would require an on-site evaluation to locate the better soil areas and drainage of the land to remove surface water and permit establishment of suitable plants for lawns, gardens, grazing, etc.

B. Industrial Sites

Marginal - If no on-site waste disposal is required then satisfactory industrial sites may be developed with the installation of adequate drainage facilities. For many industrial sites a system of open ditch drainage would provide the necessary surface and sub-surface drainage.

C. Recreation

Marginal - With drainage these soils may be adapted to many recreational and other uses. Vegetation may be established and maintained but costs are relatively high to do so.

D. Sanitary Land Fills

Unsuitable - High water table and unfavorable soil characteristics, with the potential for ground water pollution are normally very severe problems in the use of these soils for any type of sanitary land fills.

GROUP 6 - (Pk) Pamlico Muck
(Sw) Swamp

Very poorly drained organic and mineral soils with water table on surface for long periods of time. Areas identified as swamp are subject to flooding.

A. Residential Development - (See below)
B. Industrial Sites - (See below)
C. Recreation - (See below)
D. Sanitary Land Fills - (See Below)

Unsuitable - High water table, the unstable organic nature of the Pamlico Muck, and the flooding hazard of the Swamp, are very severe limitations in using these soils for any of the above uses. Only through very costly modification of the soils and landscape can satisfactory use be made of these soils for the above uses.

E. Other Urban Uses

Forestry, wildlife and agricultural uses of these soils are the most desirable. Any other uses involve extremely high costs to develop.

TABLE VIII

SUMMARY DATA

SOIL SUITABILITY FOR URBAN DEVELOPMENT

Soil Group	TYPE OF DEVELOPMENT			
	Residential	Industrial	Recreation	Sanitary Landfill
1	Suitable	Suitable	Suitable	Suitable
2	Suitable	Suitable	Suitable-Marginal	Marginal
3	Marginal	Marginal	Marginal	Unsuitable
4	Unsuitable	Marginal	Marginal	Unsuitable
5	Unsuitable	Marginal	Marginal	Unsuitable
6	Unsuitable	Unsuitable	Unsuitable	Unsuitable

Suitable - These areas may be developed for the specified use at a minimum cost to the developer. There are normally no special precautions that need to be taken in the use of the land area.

Marginal - To develop these land areas for the specified use requires the expenditure of additional capital to correct soil limitations. To obtain a satisfactory site would require: (1) modification of the soil characteristics and/or (2) special engineering designs.

Unsuitable - To develop these soil areas for specified land use would require extensive and costly modifications of the soils and the land area. Development of these areas should only be attempted after on-site soils and engineering investigations and recommendations.

Illus

	Soil Group
🟩	Group 1
🟩	Group 2
🟨	Group 3
🟧	Group 4
🟥	Group 5
🟥	Group 6

*Fine S

Note:

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JONES COUNTY

NORTH CAROLINA

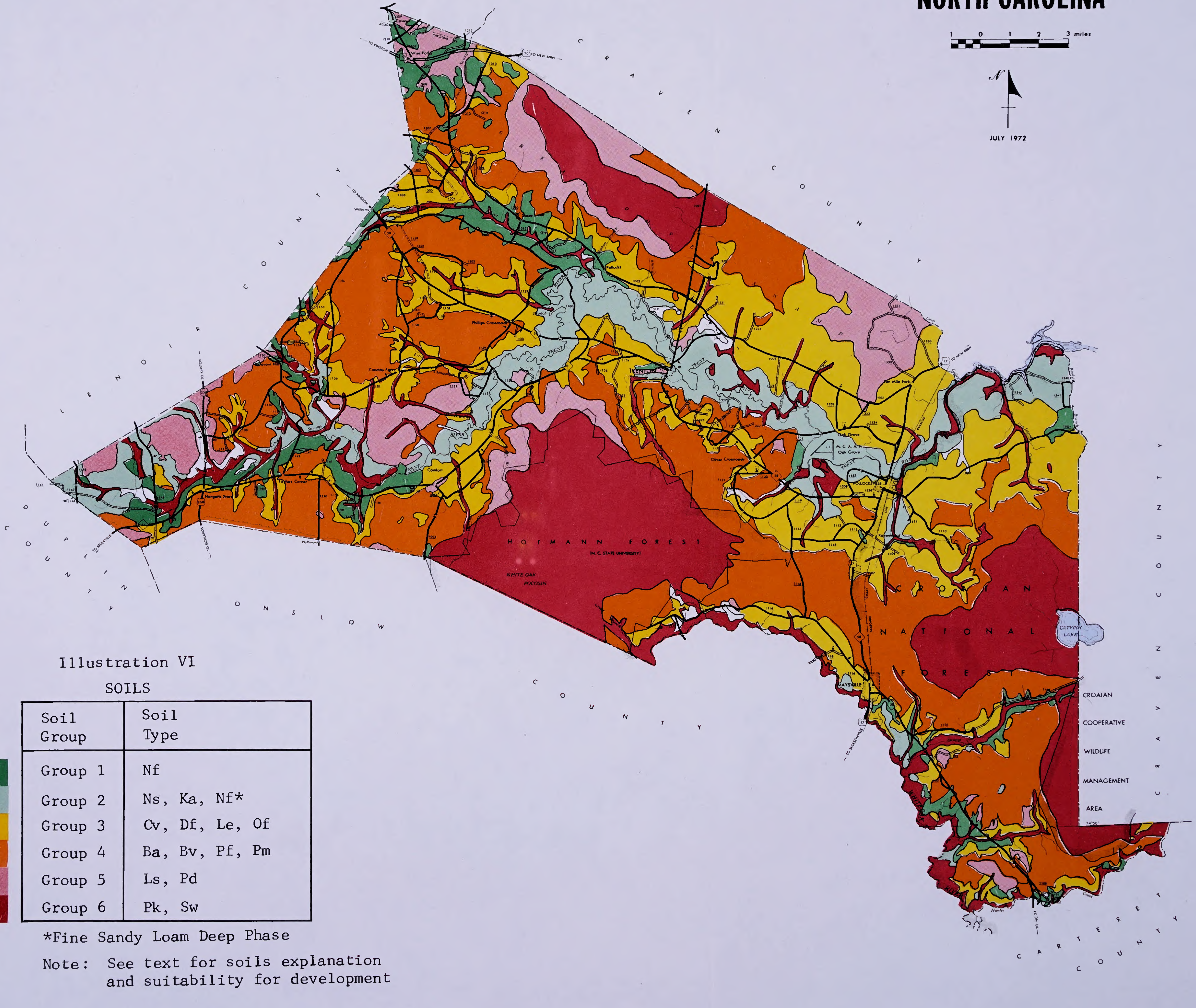


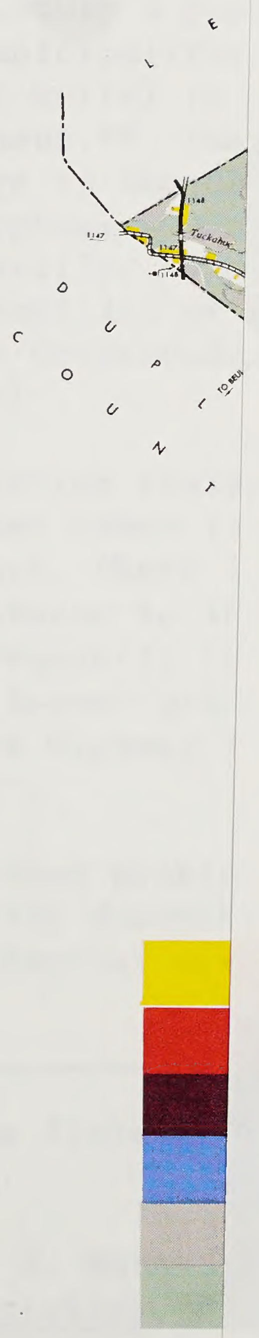
Illustration VI

SOILS

	Soil Group	Soil Type
🟩	Group 1	Nf
▨	Group 2	Ns, Ka, Nf*
🟨	Group 3	Cv, Df, Le, Of
🟧	Group 4	Ba, Bv, Pf, Pm
▨	Group 5	Ls, Pd
🟥	Group 6	Pk, Sw

*Fine Sandy Loam Deep Phase

Note: See text for soils explanation and suitability for development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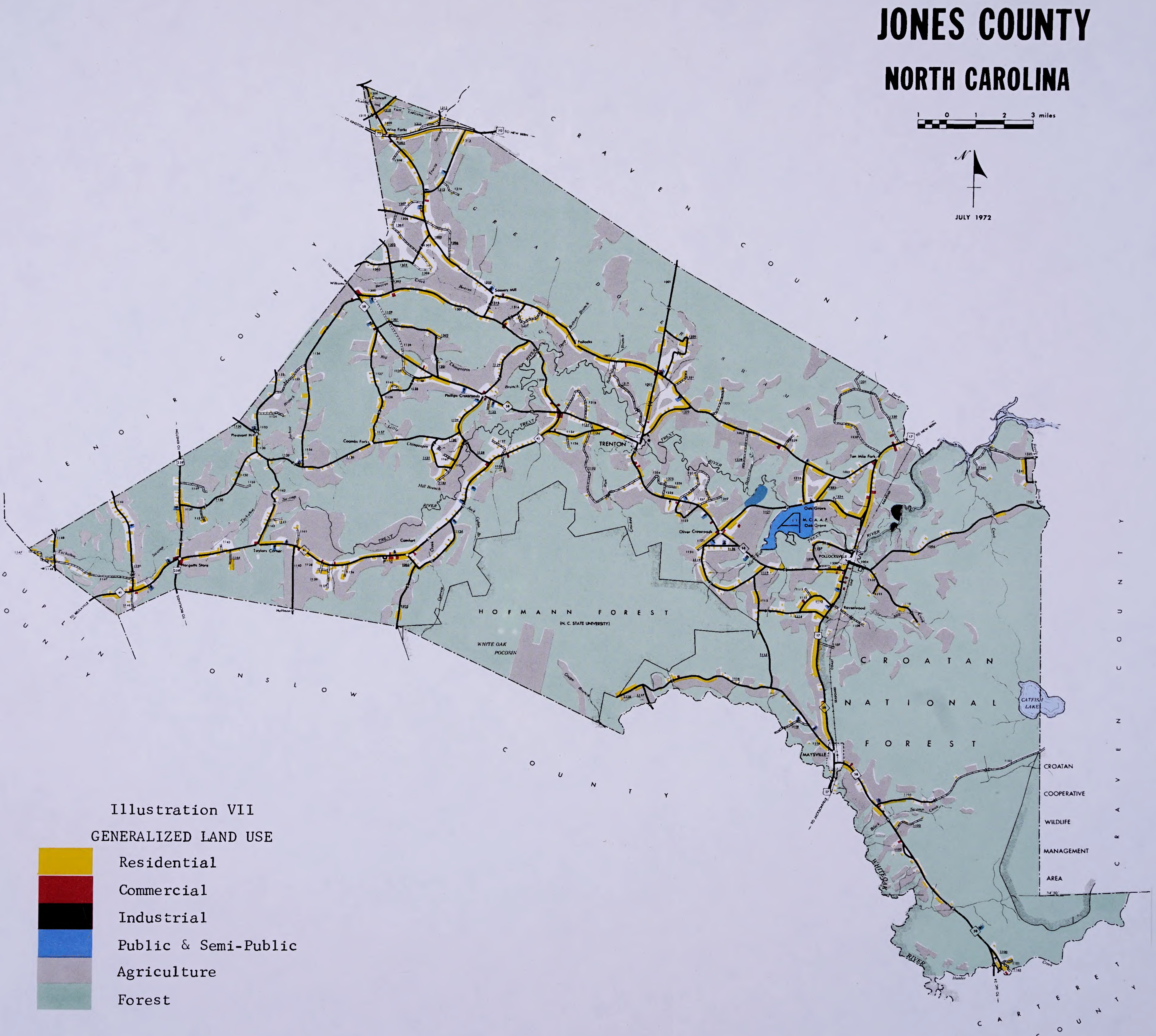

Illustration VII

GENERALIZED LAND USE

🟨 Residential

🟥 Commercial

⬛ Industrial

🟦 Public & Semi-Public

▨ Agriculture

🟩 Forest

JONES COUNTY

NORTH CAROLINA

EXISTING LAND USE PATTERNS

In order to obtain a comprehensive view of existing development and be able to identify possible land use problems, a field survey was conducted in the summer of 1972 to determine how all the land was being used.* Each use was recorded on large scale maps according to the following categories: 1) residential, 2) commercial, 3) industrial (including quarrying and other extractive industry), 4) public and semi-public (including churches, schools, government facilities and recreation uses), 5) agriculture, and 6) forest and timber uses.

The recorded information was later transferred to a smaller scale map and is included in this study as Illustration VII. In addition, a more detailed discussion of these uses is contained in the following subsections.

RESIDENTIAL

Residential land uses include mobile homes, boarding homes and other transient lodging facilities except motels.

The three incorporated towns in the County contain only 19.5 per cent of the County's population: the remaining 80.5 per cent reside outside the three municipalities. There is a total of 3,027 dwellings (2,679 occupied dwelling units) in Jones County all of which are classified as rural by the 1970 census.** There are 608 rural farm dwelling units (20 per cent of all dwellings in the County). Concentrations of rural non-farm dwellings exist along Highway 17 and the secondary roads adjacent to Trenton, Pollocksville, and Maysville. Other concentrations of dwellings exist in the non-incorporated communities of Wyse Forks, Comfort, Phillips Crossroads, Sassers Mill, Hargetts Crossroads and Taylors Corner (see Illustration VII - Generalized Land Use).

Existing residential development in the county outside of the three incorporated towns is "stripped" along the primary and secondary roads. In some cases, there is insufficient setback of houses to afford adequate privacy and quietness to the residents; this is particularly true along Highway 17, where frequently there are heavy traffic loads with numerous noisy trucks. It is a lesser problem of course along the secondary roads of the County. In the event Highway 17 is four-laned, lack of setback could become a serious problem.

Another problem with existing residential development in the County is the density distribution of houses along the roads. With the exception of the residential development adjacent to the incorporated towns and possibly in the communities of Wyse Forks and Comfort, houses are too dispersed to efficiently provide them with water and sewer utilities. Other community services such as police protection, and garbage collection could be provided at a much higher level of efficiency if residential development were more compactly distributed. Certainly this should be considered in providing for the future use of land in the County.

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*The field survey did not include land use within incorporated municipalities.

**U. S. Bureau of Census, Census of Housing: 1970, Detailed Housing Characteristics, Final Report H C (1) - B 35 North Carolina.

Housing Conditions

The 1970 Census of Housing indicates a total of 1,243 housing units in the County (41 per cent of all housing units in the County) are lacking some or all plumbing facilities. A total of 1,155 housing units (38.5 per cent of the County's total) do not contain flush toilets. Although the presence or lack of plumbing facilities is not a precise measure of living conditions, it is, as a general rule, a reliable indicator.

In May of 1972, a field survey was conducted by the staff of the Jones County Office of County Resource Development which indicated a total of 1,047 dilapidated housing units in the County, 616 of which were occupied at the time of the survey.* There are no large concentrations of dilapidated structures in any one particular area of the County outside the incorporated towns but rather they are distributed pretty much throughout the County.

The Initial Housing Study for the County which will be published as part of the County's initial year planning program contains a more complete discussion of housing conditions, occupancy characteristics and locations.

COMMERCIAL

Commercial land uses include wholesale trade, retail trade, business services such as insurance and real estate agencies, and other commercial services such as laundries, barber and beauty shops.

The majority of all commercial land uses in the County are grocery stores and gasoline service stations or a combination of both. Clientele of these facilities is limited primarily to the immediate community except those located along U. S. Highway 17, and to a lesser degree along U. S. Highway 70 and N. C. Highway 58, where some tourist and traveling trade is experienced. Minor concentrations of commercial land uses exist at almost all crossroads which are near the more densely populated areas of the County.

Problems associated with commercial land uses in the County are few but significant. Many of the commercial structures are in poor condition and present a "shabby" appearance to the public. Also, there is a large number of unoccupied commercial structures in the County which are in a "rundown" state and an eyesore to passersby. Recommendations for improvement in commercial land uses and prevention of future commercial blight are contained in the "Land Development Plan" for the County.

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*Does not include housing units inside incorporated municipalities.

PUBLIC AND SEMI-PUBLIC

Public and semi-public land uses include local, state and federal government lands and facilities,* churches, schools, and public recreation facilities.

Churches and schools are the major land users in this category. As can be seen in Illustration VII, there are over 40 churches located throughout the County. There are eight County schools, five of which are located in the County outside incorporated municipalities.

Existing recreational land uses are limited. The only significant recreational facility in the County is the relatively new Quaker Neck Country Club and golf course located on the Trent River between Trenton and Pollocksville (See Illustration VII). This facility has tennis courts, fishing and picnic facilities and a swimming pool.

A single large land use in this category is the U. S. Marine Corps' Oak Grove Landing Field. The facility occupies 942 acres and is located 3 miles northwest of Pollocksville. Primary use of the landing field is for helicopter training purposes.

A more detailed discussion of schools, fire fighting facilities and other community facilities which are considered public and semi-public uses is contained in a subsequent section of this report, "Community Facilities."

INDUSTRIAL

Industrial land uses in the County are very few in number and relatively small in operation. Almost all uses in this category are associated with farming and/or forestry and lumbering.

Quarrying, which for the purpose of this study, is considered an industrial land use, is the only other existing land use of this category in the County.

AGRICULTURE

Agriculture production has been and is a major user of land in Jones County. According to the 1969 Census of Agriculture** there is a total of 94,698 acres in farms in Jones County (approximately 32 per cent of all land in the County). Land used for harvestable crops (cropland) accounts for 45,147 acres of the land in farms or almost half of all farm land in the County.

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*For the purpose of this study, State and National Forest lands are considered under the separate land use category, "Forestry."

**U. S. Bureau of the Census, Census of Agriculture, 1969, Volume I. Area Reports, part 26. North Carolina Section I. Summary Data; U. S. Government Printing Office, (Washington, D. C., 1972).

The number of farms in the County has been declining over the past 20 years. In 1950, there were 1,604 farms while in 1969 there were only 696 farms in the County. Farm acreage has also declined during this time period from 128,873 acres in 1950 to 94,698 acres in 1969. The overall trend has been toward fewer but larger farms. In 1950, for example, the average size farm was 80.3 acres; in 1969, the average size farm had increased to 136.0 acres.

The value of agriculture production in Jones County has been increasing, but not at a significant rate when other factors such as cost of supplies and implements and rate of economic inflation is considered. In 1954 for example, total value of all farm products sold was $5,733,550; in 1969 the total value of all farm products sold was $8,224,648. However, between 1964 and 1969, the total value of all farm products sold declined from $8,493,716 to $8,224,648, respectively.

Illustration VII - Generalized Land Use - indicates the location and distribution of farm land (agriculture) in the County.

FORESTRY

A sizeable portion of Jones County is occupied by State and National Forests (70,743 acres total). Also, there are 50,299 acres of forest land in Jones County which are owned by pulp and paper companies. Altogether this acreage accounts for over 40 per cent of all land in the County. State and National Forests alone, from which the County realizes no tax income, accounts for 23.7 per cent of all land in the County. In addition, there are 18,682 acres in single ownership tracts consisting of 1,500 or more acres which, for the most part, is in forest land.

A recent report, North Carolina Conservation Needs Inventory*, prepared in 1971, indicates a total of 207,995 acres of commercial forest** in Jones County. This represents nearly 70 per cent of all land in the County.

Illustration VIII indicates the location of large single owner land holdings in the County including State and National Forests.

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*North Carolina Conservation Needs Inventory, prepared by North Carolina Soil and Water Conservation Needs Committee; offset, (Raleigh, 1971).

**Commercial Forest: Land which is at least 10 per cent stocked by forest trees of any size or formerly having had at least 10 per cent stocking and not currently developed for non-forest use and which is:

(a) Producing, or capable of producing, crops of industrial wood. Includes both accessible and inaccessible areas and cutover areas on which timber species have not been re-established and which have not been developed for non-forest use at the time of inspection.

(b) Not withdrawn from timber use by statute or administrative regulation.

(c) Suitable for management to grow crops of industrial wood.

(d) Capable of producing at least 20 cubic feet of industrial wood per acre per year (timber species may not have been on area at time of inventory).

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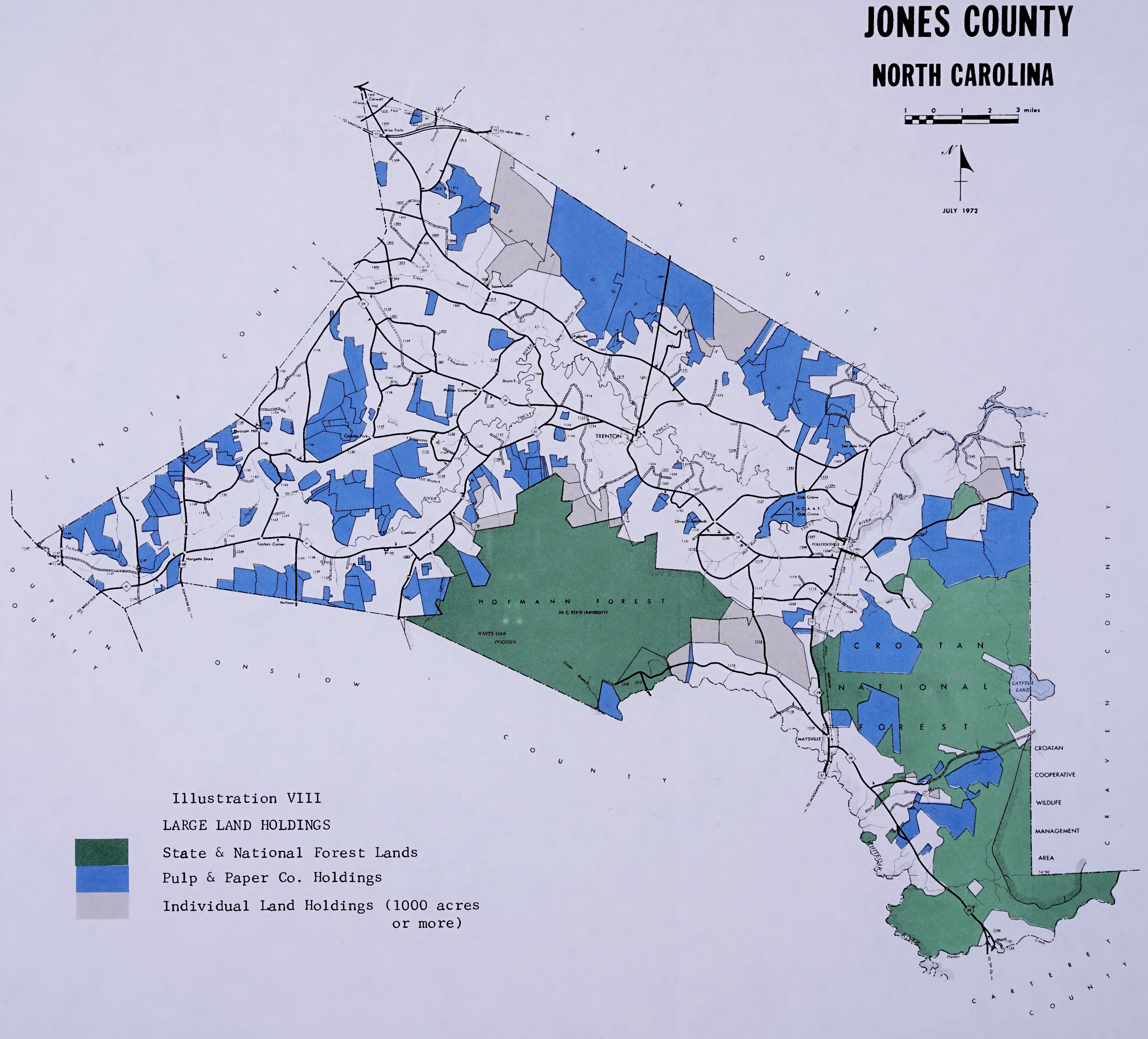

Illustration VIII

LARGE LAND HOLDINGS

🟩 State & National Forest Lands

🟦 Pulp & Paper Co. Holdings

⬜ Individual Land Holdings (1000 acres or more)

COMMUNITY FACILITIES AND SERVICES

A major factor in determining the best locations for residential, commercial, industrial and other land uses is the location and coverage of existing and planned community facilities and services, i.e., water and sewer facilities, fire protection, police protection, schools, etc. In this section, existing and planned facilities and services in the County are examined with the above in mind.

MEDICAL

Medical facilities and services in Jones County are very limited. There are no overnight hospital facilities and only two full-time medical doctors serving the county.

Jones County Health Department. The most comprehensive health service in the County is provided by the Jones County Health Department. Staff of the Health Department includes: a public health physician (part-time only, Tuesdays and Fridays), two public health nurses, a sanitarian and two administrative personnel.

Services provided by the medical staff of the Health Department include: a maternity clinic on the 2nd and 4th Wednesday of each month; an orthopedic clinic on the 2nd Tuesday of each month; an immunization clinic on Tuesday and Friday of each week; an eye clinic on the 4th Thursday of each month; and a planned parenthood clinic twice a month.

Other services provided by the medical staff of the Health Department include physical examinations, TB skin tests and X-ray reactor tests of all 1st and 9th grade students in the public school system, treatment and referral of TB patients and contacts and various other examinations, treatments and referrals.

The Health Department Sanitarian serves as the County Health Inspector with respect to North Carolina Public Health Laws and supervises the sanitation of the County's landfill and solid waste collection service.

SOLID WASTE COLLECTION AND DISPOSAL

Jones County only recently implemented a solid waste collection and disposal service for the County. The service is tax subsidized and is operated and maintained by the County.

The service is set up to provide once-a-week pick up of solid waste at a nominal cost to residents using special 30 gallon plastic bags for pick-up. The service operates on all state maintained roads in the County, thereby guaranteeing pick-up to all residents of the County.

The landfill site which serves the County is centrally located approximately 1 mile northeast of Trenton off Sandpit Road. The landfill, in addition to serving as a disposal site for the garbage pick-up service, is open to all Jones County citizens to dispose of personal trash and garbage. Three areas are designated within the landfill for the disposal of various types of solid waste: 1) a soft-waste area for normal trash and garbage; 2) a hard-waste area for discarded stoves, refrigerators and similar heavy appliances and furniture; and 3) a hard-waste area for abandoned and junked automobiles. For a nominal fee Jones County citizens can have abandoned or junked cars removed from their property and disposed of in the landfill.

Illustration IX shows the location of the County's landfill and the daily collection routes of the garbage disposal service.

POLICE PROTECTION

Police protection in Jones County is provided primarily by the Jones County Sheriff's Department. The Sheriff's Department includes the Sheriff and three full-time deputies. The North Carolina State Highway Patrol has two patrolmen assigned to Jones County from District 7 Headquarters in Kinston, and there are four township constables in the County. The Town of Trenton has one full-time policewoman and the Town of Pollocksville is now reviewing applications for employment of a full-time policeman.

FIRE PROTECTION

There are six equipped fire stations in Jones County. The following briefly describes each station including major equipment.

Trenton

The Trenton Fire Department is manned by 25 volunteer firemen on 24 hour call and one full-time paid fireman who mans the station nights.

Major fire fighting equipment consists of three pumper trucks: 1) 1972 Ford equipped with 1200 gallon capacity water tank and 500 gallon per minute (gpm) pump, self contained breathing equipment, ropes, ladders, and special protective clothing, 300 ft. of $1\frac{1}{2}$" hose and 150 feet of booster line; 2) 1954 International equipped with 1000 gallon capacity water tank and 500 g.p.m. pump, ropes, ladders, protective clothing, 300 ft. of $1\frac{1}{2}$" hose and 150 feet of booster line; and 3) 1947 Internationak equipped with 500 gallon capacity water tank and 500 g.p.m. pump, 2000 ft. of $2\frac{1}{2}$" hose, 200 ft. of $1\frac{1}{2}$" hose and 50 feet of booster line.

Pollocksville

The Pollocksville Fire Department is manned by 25 volunteer firemen on 24 hour call.

Major fire fighting equipment consists of one pumper truck, 1968 John Beaman equipped with high pressure pump, 400 ft. of reel (1") hose and 400 ft. of $1\frac{1}{2}$" hose, and one 1250 gallon capacity water carrying truck.

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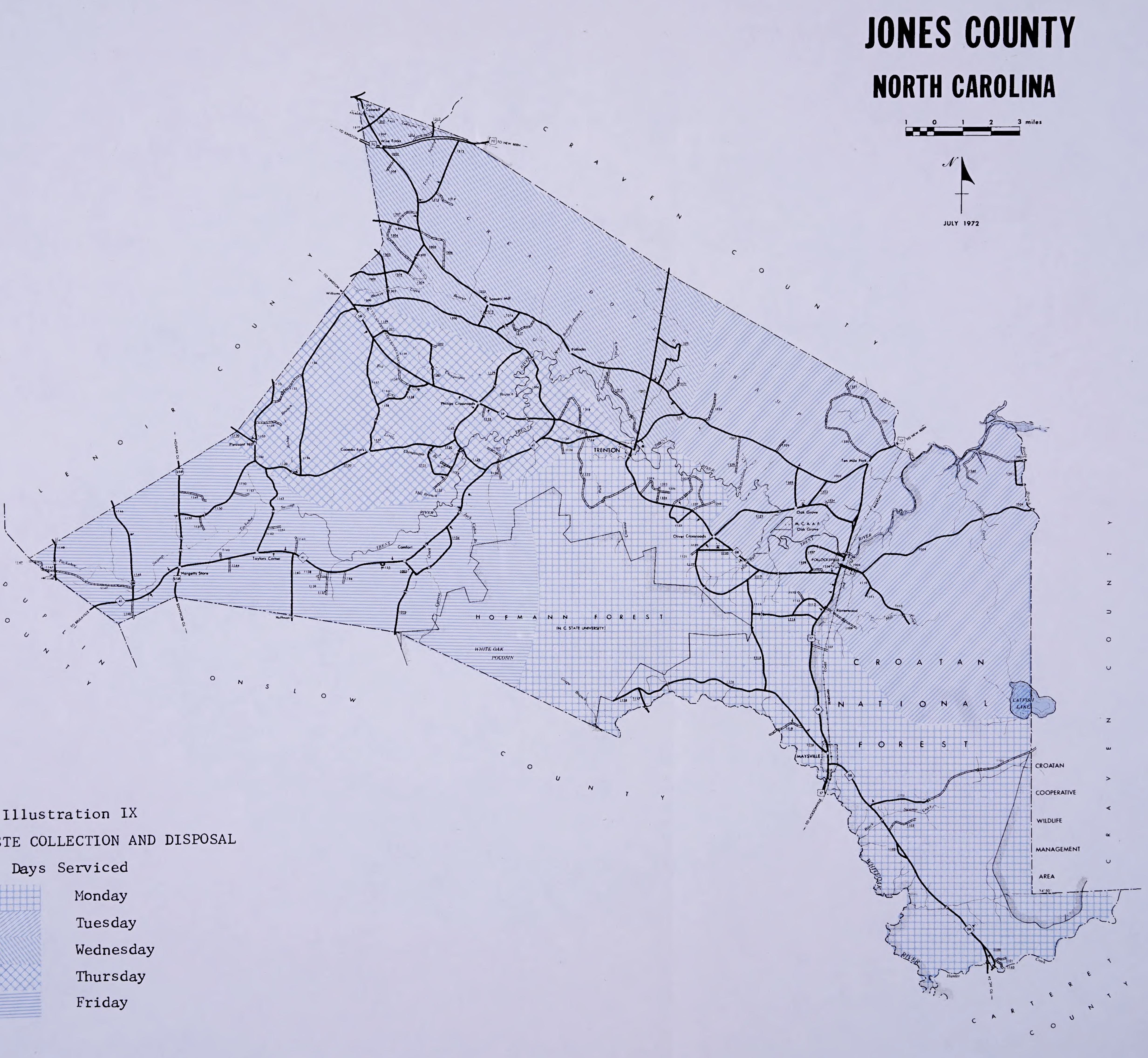

Illustration IX

SOLID WASTE COLLECTION AND DISPOSAL

Days Serviced

- ▦ Monday
- ▧ Tuesday
- ▨ Wednesday
- ▩ Thursday
- ▤ Friday
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Maysville

The Maysville Fire Department is manned by 40 volunteer firemen on 24 hour call.

Major fire fighting equipment consists of a 1951 Ford pumper truck equipped with 500 gallon capacity water tank and volume pump, self contained breathing equipment, ladders, ropes, and protective clothing, 300 ft. of 1½" hose and two 250 ft. reels of booster line, and a 1967 Ford pumper truck equipped with 250 gallon capacity water tank and pump, 500 ft. of 2½" hose and 250 ft. of 2½" booster line. The 1967 Ford pumper truck is used for fighting fires only in Maysville.

Comfort

The Comfort Community Fire Station is manned by 20 volunteer firemen on 24 hour call.

Major fire fighting equipment consists of: 1) 1941 International pumper truck equipped with a 300 gallon capacity water tank and 300 g.p.m. pump, 500 ft. of 2½" hose and 100 ft. of booster line, and an "air pack"; and 2) 1970 Chevrolet truck with an 800 gallon capacity water tank and other miscellaneous accessory equipment.

Wyse Fork

The Wyse Fork station is manned by 25 volunteer firemen on 24 hour call.

Major fire fighting equipment consists of: 1) 1958 Ford pumper truck equipped with 500 gallon capacity water tank, 500 ft. of 2½" hose, 200 ft. of 1½" hose, self contained breathing equipment, ladders, ropes, and special protective clothing; 2) a 1955 Chevrolet pumper truck with 350 gallon capacity water tank, 500 ft. of 2½" hose, 200 ft. of 1½" hose and other necessary fire fighting equipment; and 3) an autocar tanker truck (3000 gallon capacity), 50 ft. of 4" hose and 100 ft. of 3" hose.

Hargetts Cross-Roads

The Hargetts Cross-Roads Fire Department is manned by 20 active volunteers on 24 hour call. Most of the volunteer firemen have been to special fire-fighting courses and training sessions.

Major fire fighting equipment consists of a Mack pumper truck, a 1960 Chevrolet pumper truck and a 1965 International tanker with a 3000 gallon capacity. Each truck is equipped with necessary hoses (1½" and 2½" sizes), and other necessary fire-fighting equipment required for a rural fire rating.

The Hargetts Cross-Roads Fire Department is in direct communication with the Jacksonville Fire Department in Onslow County in the event assistance is needed by either.

Illustration X indicates the location of the six fire stations in the County and the districts which they serve. An approximate 4-mile service radius is also shown for each fire station.

EMERGENCY RESCUE AND AMBULANCE SERVICE

Three communities in Jones County now have emergency rescue and ambulance service: Comfort, Maysville, and Trenton. A fourth community, Pollocksville, is in the process of forming an emergency rescue squad with 45 people already having completed preliminary training. A local fraternal organization is raising money to purchase an emergency rescue ambulance. The three existing emergency rescue squads, their major equipment and manpower, are briefly described below.

Comfort - The Comfort Emergency Rescue Squad has 30 volunteers (20 men and 10 women) on 24 hour call. Major equipment consists of an ambulance with necessary emergency and rescue equipment (stretchers, splints, resusitators, oxygen tanks, first aid equipment, tools, and citizens band radio). The Comfort rescue unit also has a boat for water rescue and search operations.

Maysville - The Maysville Emergency Rescue Squad has 19 volunteers (15 men and 4 women) on 24 hour call. Major equipment consists of two emergency rescue ambulances, both with necessary emergency and rescue equipment.

Trenton - The Trenton Emergency and Rescue Squad has 20 volunteers (all men) on 24 hour call. Major equipment consists of an emergency rescue ambulance with necessary emergency and rescue equipment. The Trenton rescue unit also has a portable generator and equipment for search lights.

SCHOOLS

There are eight schools in the Jones County school system which serve all of the County including the incorporated towns. A brief description of each school including general building condition is given below. Illustration X indicates the school locations.

Comfort Elementary School

The Comfort Elementary School contains Kindergarten through the 6th grade and is located in the southwest section of the County in the community of Comfort. The school has an average daily attendance of 192 students.

Building condition is considered to be fair. There are no indoor recreation facilities. Outdoor recreation facilities consist mainly of a playground with limited equipment.

Trenton Primary School

The Trenton Primary School contains Kindergarten through 3rd grade and is located just outside the Town of Trenton to the northeast. The Trenton primary school has an average daily attendance of 228 students.

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JONES COUNTY

NORTH CAROLINA

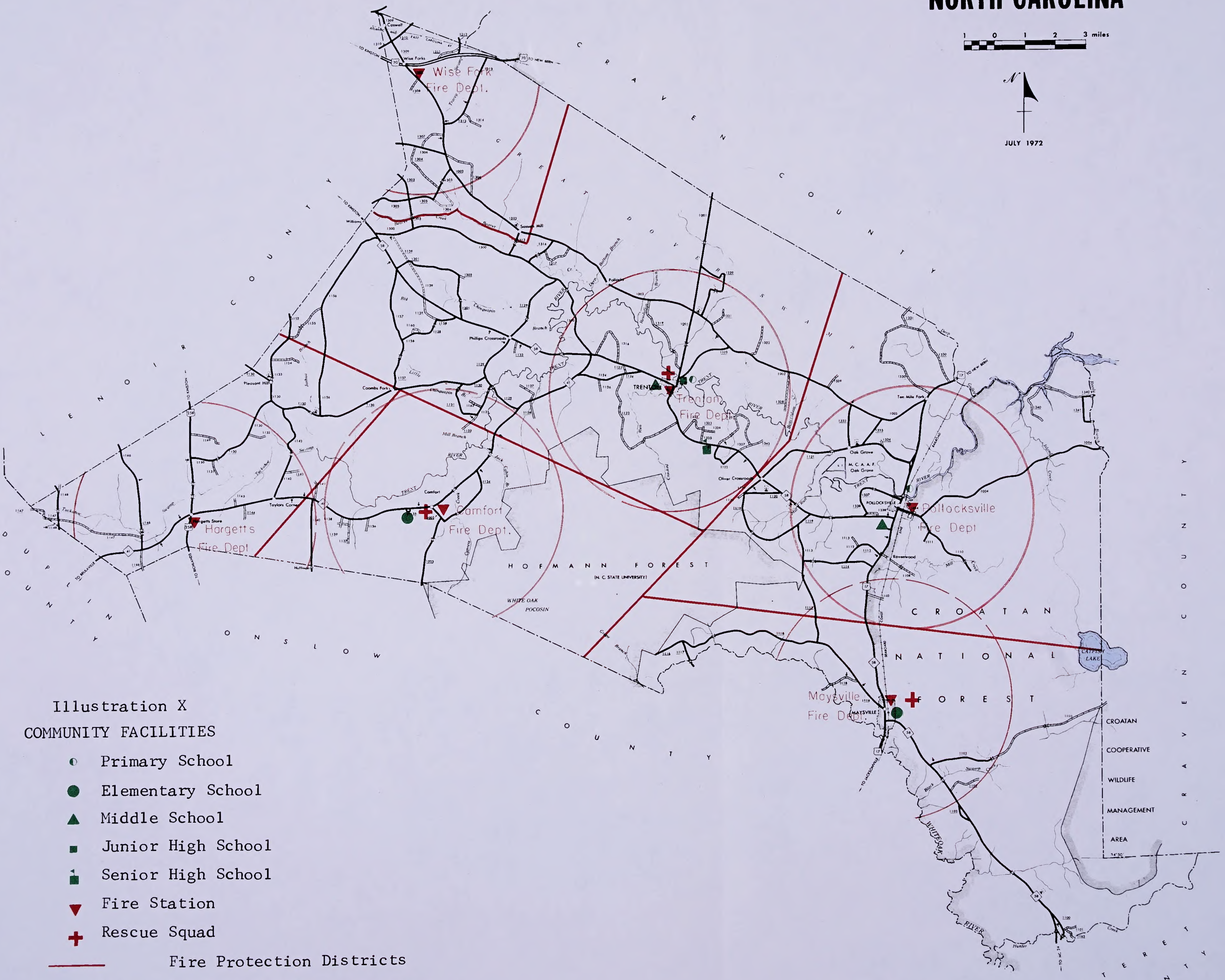

Illustration X

COMMUNITY FACILITIES

- ◐ Primary School
- ● Elementary School
- ▲ Middle School
- ■ Junior High School
- ▲ Senior High School
- ▼ Fire Station
- ✚ Rescue Squad
- ― Fire Protection Districts

Note: Circle indicates approximate 4-mile service radius

Building condition is considered good. There are no indoor recreation facilities. The school has a well equipped playground for outdoor recreation.

Trenton Middle School

The Trenton Middle School contains grades 4 through 6 and is located in the Town of Trenton off State Highway 58 west. The school has an average daily attendance of 264 students.

Building condition is considered to be fair to good. There are no indoor recreation facilities. Outdoor recreation facilities consist of playground with limited equipment and softball field.

Jones County Junior High School

The Jones County Junior High School contains grades 7 through 9 and is the only junior high school in the County. The school is located just outside the Town of Trenton to the northeast. Average daily attendance of the school is 626 students.

Building condition is good throughout. Indoor recreation is provided by a fully equipped gymnasium. Outdoor recreation facilities consist of general playground area and a lighted ballfield.

Jones County Senior High School

The Jones County Senior High School contains grades 10 through 12 and is the only senior high school in the County. The school is located off N. C. State highway 58 approximately two miles southeast of Trenton. Average daily attendance of the Senior High School is 539 students.

Building conditions are considered good throughout. Indoor recreation is provided by a fully equipped gymnasium. Outdoor facilities include sports fields fornormal daily use and a lighted ballfield for sports events.

Alex H. White Primary School

The Alex H. White Elementary School has Kindergarten through the 3rd grade and is located in the Town of Pollocksville. Average daily attendance of the school is 141 students.

Building conditions are considered to be fair. There are no indoor recreation facilities. Outdoor recreation facilities consist of a playground with limited equipment.

J. W. Willie Middle School

The J. W. Willie Middle School contains grades 4 through 6 and is located approximately one mile south of Pollocksville off U. S. Highway 17. Average daily attendance of the school is 158 students.

Building conditions are considered good. There are no indoor recreation facilities. Outdoor recreation facilities consist of a playground with limited equipment.

Maysville Elementary School

The Maysville Elementary School has Kindergarten through the 6th grade and is located in the Town of Maysville. Average daily attendance of the Maysville Elementary School is 266 students.

Building conditions are considered fair to poor. Indoor recreation facilities consist of a gymnasium with limited equipment. Outdoor recreation facilities consist of a playground - ballfield with limited equipment.

Jones Academy

Jones Academy is a privately operated school located approximately 2 miles south of Pollocksville. Jones Academy contains grades 1 through 8 and has a total enrollment of 37 students. The school began operation in 1968 and moved into their present location in 1970. Cost per student is based on a sliding scale depending on the number of students enrolled per family with a decreasing cost for each additional child from a single family.

UTILITIES

Water Facilities

The only public water system in Jones County is in the Town of Maysville. Other areas of the County, however, are in the process of providing public water to area residents.

A Comprehensive Water and Sewer Study for Jones County was completed in 1968*. The resulting plan for the provision of water facilities in the County between 1968 and 1990 is indicated in Illustration XI. Since completion of the Water and Sewer Study and Plan in 1968, detailed plans have been prepared and Federal grant applications submitted for the Towns of Trenton and Pollocksville to construct community water facilities. Time of construction and completion has not been set, however.

Sewer Facilities

There are two public sewer systems in Jones County; one in Maysville and one in Trenton. Although Trenton has a public sewage collection system, all sewage from the system is discharged untreated into the Trent River. As was noted in a previous section of this report, "Surface Water," the discharging of raw, untreated sewage from the Trenton sewer system into the Trent River creates a severe pollution problem.

In the 1968 Comprehensive Water and Sewer Study, sewer systems including treatment facilities were planned for the Towns of Maysville, Pollocksville and Trenton, with recommendations thatthe systems be expanded to include areas surrounding the towns if and when it becomes economically feasible. As was noted above, the Town of Maysville has already completed its sewage collection and treatment system and it is now in operation. Detailed plans have been completed and Federal grant applications have already been submitted

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* Jones County Comprehensive Water and Sewer Study, Rivers & Associates, Inc., Greenville, N. C., 1968.

TABLE IX

JONES COUNTY SCHOOLS

SUMMARY DATA

School	Grades	Average Daily Attendance	Number of Classrooms	Estimated Maximum Classroom Capacity*	Building Condition
Comfort Elementary	K - 6	192	9	205	Fair
Trenton Primary	K - 3	228	19	455	Good
Trenton Middle	4 - 6	264	16	400	Fair to Good
Jones Co. Jr. High	7 - 9	626	29**	840	Good
Jones Co. Senior High	10 - 12	539	29**	840	Good
Alex H. White Primary	K - 3	141	10	230	Fair
J. W. Willie Middle	4 - 6	158	10	250	Good
Maysville Elementary	K - 6	266	11***	260	Fair to Poor
County System Total	K - 12	2,414	133	3,480	----

*Based on capacity standards of:
1) 30 students per classroom for grades 7-12
2) 25 students per classroom for grades 1-6
3) 15 students per classroom for Kindergarten

**Includes 6 mobile classroom units
***Includes 1 mobile classroom unit

for the construction of sewage collection and treatment facilities in the towns of Trenton and Pollocksville. Time of construction and completion has not been determined, however.

Electrical Power

Five utility companies provide electrical power in Jones County: Jones-Onslow Electric Membership Corporation, Carteret-Craven Electric Membership Corporation, Tri-County Electric Membership Corporation, City of New Bern, and Carolina Power and Light Company.

In addition to the distribution lines (2300 volts) which the above electric utility companies provide to all developed areas of the County, Carolina Power and Light Company has high-voltage electrical transmission lines which are located in the County (See Illustration XI).

Natural Gas

There are no natural gas lines located in Jones County. However, North Carolina Natural Gas Company has an 8" gas line between Kinston and New Bern which parallels the northeast boundary of Jones County. The Kinston to New Bern gas line could be tapped to supply portions of Jones County in the event sufficient demand develops.

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JONES COUNTY

NORTH CAROLINA

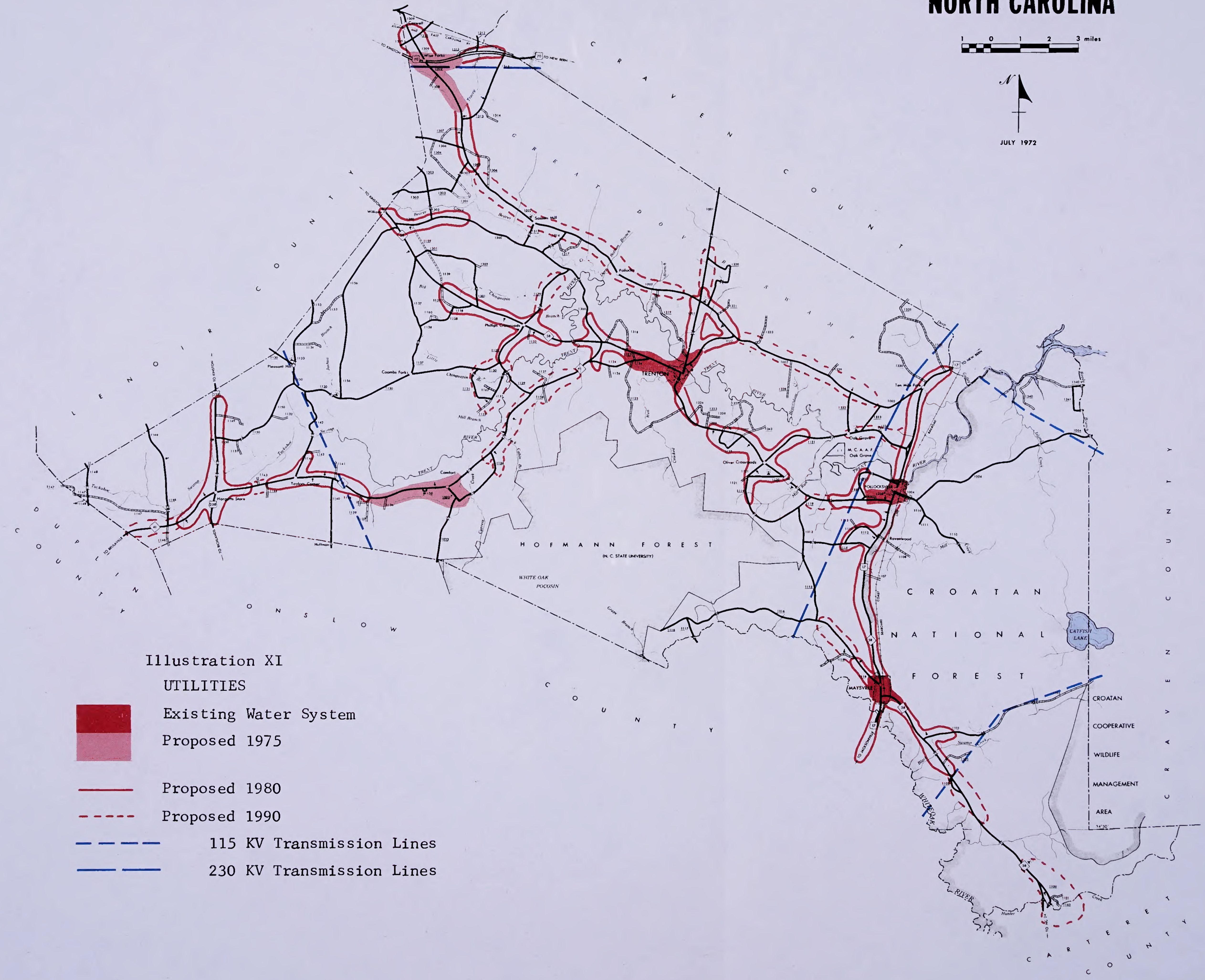


Illustration XI

UTILITIES

🟥	Existing Water System
🟥	Proposed 1975
——	Proposed 1980
- - -	Proposed 1990
— — —	115 KV Transmission Lines
—— ——	230 KV Transmission Lines

TRANSPORTATION FACILITIES

HARD-SURFACE ROAD SYSTEM

Jones County has a good system of hard-surface roads which provide access to all parts of the County and connect the County with the nearby regional trade centers of Kinston, New Bern and Jacksonville. U. S. Highway 17 provides the primary north-south route and connects the County with New Bern and Jacksonville and other areas to the north and south of the County. U. S. Highway 258, which primarily serves to connect Kinston with Jacksonville passes through the extreme southwest section of the County and N. C. Highway 41 extends from N. C. Highway 58 above Trenton through the community of Comfort and into Duplin County. East-west travel in the county is provided primarily by N. C. Highway 58, which connects the County with Kinston to the northwest and Bogue Sound and the Atlantic Ocean to the southeast. U. S. Highway 70, the major route between Kinston and New Bern, passes through the extreme northwest tip of the County. State Road 1002, which connects U. S. Highways 17 and 70, also serves to provide east-west access in the County.

Illustration XII indicates the annual average daily traffic volume of the major hard-surfaced roads in the County.

RAILROAD SYSTEM

There are two railroads which serve Jones County: the Seaboard Coast Line and the Atlantic and East Carolina Railway.

The Seaboard Coast Line (SCL) for the most part parallels U. S. Highway 17 in the County in a north-south direction. The SCL has freight stations in Pollocksville and Maysville. The Seaboard Coast Line extends to New Bern to the northeast and connects with the Norfolk and Southern Railway. To the South, the Seaboard Coast Line extends to Wilmington, Charleston, S. C. and points along coastal Georgia and Florida.

The Atlantic and East Carolina Railway passes through the extreme northwestern section of the County and parallels U. S. Highway 70. The railroad extends from Morehead City on the coast through New Bern and Kinston northwest of the County to Goldsboro.

BUS TRANSPORTATION FACILITIES

Bus transportation facilities are limited in Jones County. Maysville and Pollocksville are the only locations in the county which have commercial bus service and it is on a limited schedule.

WATER TRANSPORTATION FACILITIES

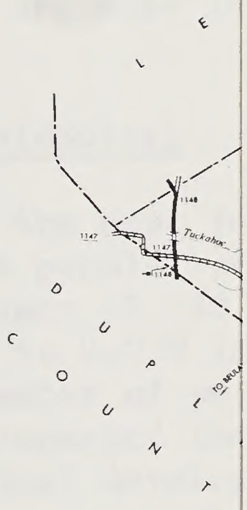
It was pointed out previously that the Trent River is navigable as far up as Pollocksville. It is believed that with minimum effort and expense good barge facilities could be established in Pollocksville to connect the County with the Morehead City Port and other towns on the Neuse River and Pamlico Sound.

AIR TRANSPORTATION FACILITIES

There are no commercial airports in Jones County. However, commercial airports which are served by one or more airlines are located nearby in Kinston, New Bern and Jacksonville (approximately 30 minutes driving time from most parts of Jones County).

COMMERCIAL MOTOR FREIGHT FACILITIES

Approximately 25 truck lines serve Jones County, all of which have interstate transport rights. There are no freight line terminals in the County, however, several are located in nearby Kinston, New Bern and Jacksonville.



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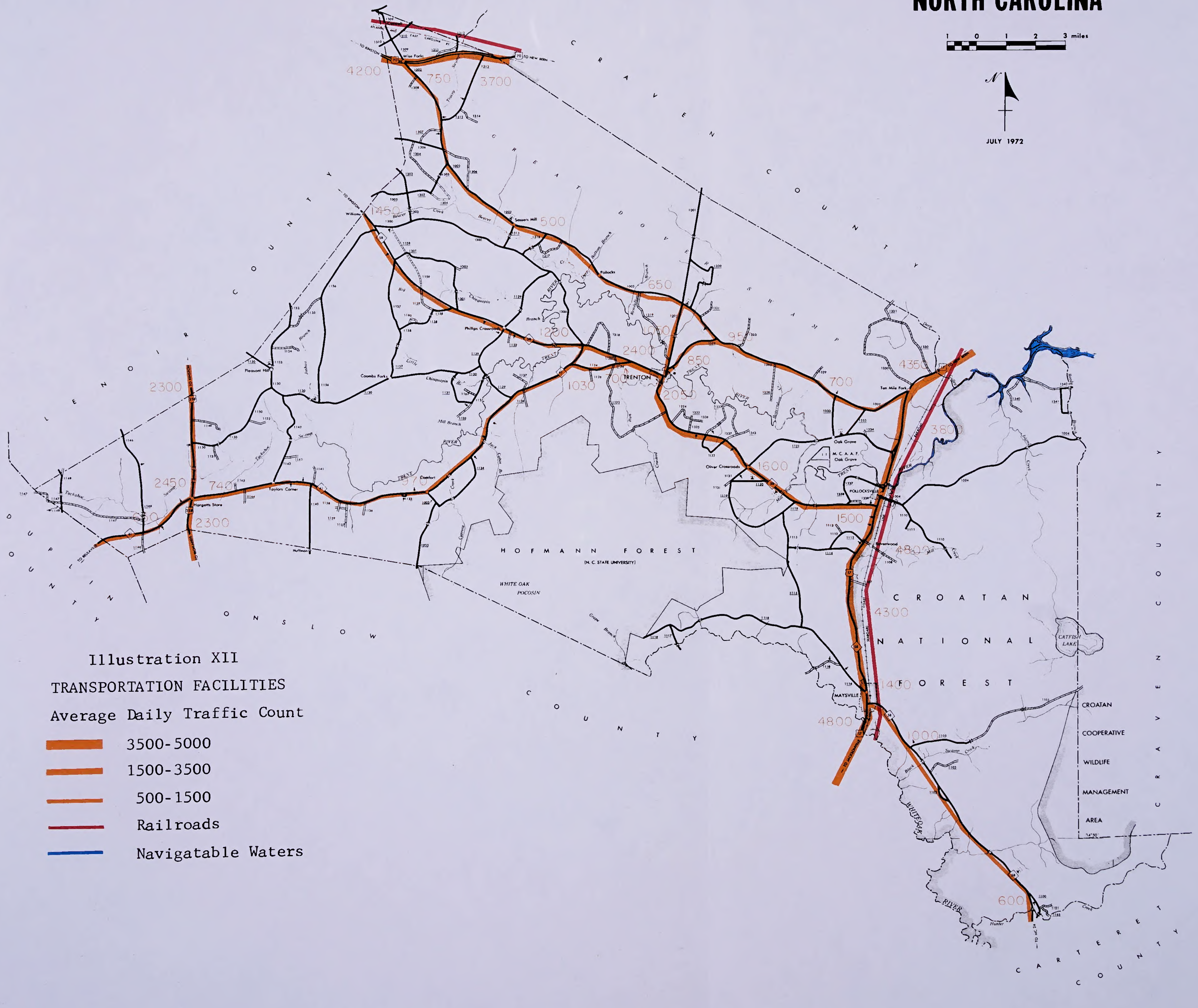

Illustration XII

TRANSPORTATION FACILITIES

Average Daily Traffic Count

- ▬ 3500-5000
- ▬ 1500-3500
- ▬ 500-1500
- ▬ Railroads
- ▬ Navigatable Waters

JONES COUNTY

NORTH CAROLINA

DEVELOPMENT POTENTIAL

Previous sections of this report have brought to light many factors, both natural and man-made, which will influence the amount, location, and direction of future development in Jones County. These factors should be thoroughly considered in evaluating the development potential of the County.

For purposes of discussion, the development potential is divided into two categories: urban (residential, commercial, industrial, and recreational) and non-urban (primarily agriculture and forestry).

The following paragraphs summarize the development potential of Jones County according to urban and non-urban land uses. Principals and standards for development and a recommended "land development scheme" for the County are contained in the Land Development Plan.

URBAN DEVELOPMENT POTENTIAL

The amount of urban development which takes place in a community depends on many things. Economic conditions, nationally and locally, play an important role in determining the rate and timing of development. Accessibility, soil suitability, proximity to existing development and other similar factors perhaps are more important in determining the location and description of development.

Residential

In the past ten years (1960-1970) there has been a loss of 1,225 in the County's population. During this same time period, however, there has been an increase of 146 in the total number of occupied dwelling units, from 2,533 in 1960 to 2,679 in 1970. Although there has been a slight increase in the total number of occupied dwellings in the County over the past ten years, it is not expected that there will be any significant increase in demand for residential development in the County until a stronger economic base is established and the trend in population loss is arrested or reversed.

It is possible that some demand for residential development in the County will be generated as a result of "overflow" from the New Bern and Kinston areas particularly, and to a lesser degree from the Jacksonville area. These are the primary areas of employment outside the County.

Although there is no significant demand for residential development evident in the County at this time, increase in industrial development and possibly recreational development could generate a demand for residential development.

"Estate" development (3 to 10 acre sites), and possibly "retirement estate" development could add to the potential for residential development in the County. The County has a clean living environment and the land is not crowded. There is a notable absence of air pollution, traffic congestion and other stigma of our century which enhance the County as a place to live.

Commercial

As in the case of residential development, some degree of industrialization will necessarily have to take place before any significant additional potential is generated for commercial development in the County. There are three areas of significant concentration of commercial development at this time, Trenton, Pollocksville, and Maysville. In addition, minor concentrations of commercial development exist in the vicinity of the major crossroads of the County.

It is anticipated that the greatest potential for commercial development will be in the incorporated towns of Trenton, Pollocksville, and Maysville. And, as is pointed out in the Land Development Plan, it is in these three areas of the County that it is desirable to have additional commercial development.

Industrial

Industrial development potential is determined by many factors. Available utilities, accessibility, existence of valuable natural resources (i.e., water, minerals, timber, etc.) available labor force, available land and proximity to markets for goods produced are just a few of the more important determinants of the industrial development potential of a community.

As was brought out in previous sections of this report, Jones County has many assets which are locational advantages for industry. For example, the County is highly accessible. Two railroads operate in the County, the County has a good system of primary and secondary roads, three commercial airports are within 30 minutes or less from most parts of the County, and the County is accessible by water (barge traffic). Large land areas with suitable soils are available for industrial development in the County and there is an ample supply of both surface and ground water which would meet the demand of many types of industries. All of these factors would certainly contribute to the potential for industrial development in the County.

On the other hand, the County also has several liabilities with respect to industrial development potential. Having experienced a population decline over the past decade has reduced the existing available labor force in the County. Even though, as was discussed previously, there are plans for additional water and sewer facilities in the County, there is, at this time, a notable lack of water and sewer facilities to serve prospective industry. And, there is no significant urban growth center in the County with a diversified, in depth offering of commercial and public facilities and services.

None of the above factors would preclude the possibility of industrial development in the County, however, they would tend to limit the types of industry the County could expect to attract.

The greatest potential for industrial development at this time would appear to be for industries which are normally large land and water users, having limited requirements for highly trained personnel initially. As water and sewer facilities are constructed in the County and the labor force situation improves, the potential for other types of industrial development should also improve. It is most important at this time, however, that the County work toward establishing a strong and permanent basic-industry economy to complement its existing agriculture economic base.

Recreation

The recreation and leisure time "industry" is perhaps the fastest growing of all. Americans have more leisure time and spendable income than ever before, and, more than ever, their time and money is being spent on recreation and leisure living.

Although Jones County overall would rate low in potential for recreational development, according to a recent investigation of thepotential for outdoor recreation in the County,* there are certain types of recreationally oriented development which have a high potential. Illustration XIII graphically represents the results of investigating the development potential of 18 different activities. As can be seen in the illustration, small-game and big-game hunting areas have the highest potential for development, followed by historic-area development. According to the report, the evaluation of potential for development was based on 18 "key elements." These were: climate, scenery, natural areas, historic areas, access to potential sites, proximity to urban centers, soils, age levels, income levels, existing water, size of urban centers, water impoundment sites and potential water impoundment sites, occupations, game habitats, tourist routes, game populations, land use patterns, and rural ownership patterns.

NON-URBAN DEVELOPMENT POTENTIAL

Agriculture

The economy of Jones County has been and still is agrarian oriented. It was noted previously that there are approximately 45,000 acres of land in the County being used as cropland (15 per cent of all land in the County). It was also noted that the total number of farms had declined over the past 20 years and there has been a decrease in the total amount of farm land during this time period. Also, the past trend has been toward larger farms.

Although the economy of Jones County is oriented toward agriculture production there has been an apparent decline in the intensity with which agriculture production has been pursued. This may be due to any number of reasons, some of which are not readily detectable such as changes in family characteristics, individual desires, etc. In any event, it is very likely that the physical make-up of the County, i.e., soils, climate, topography, etc., is capable of supporting much more intensive and extensive development for agriculture production than is now occurring. Other factors considered, such as available markets and consumer trends, also would indicate a potential in Jones County for increased agriculture production. Certainly, the possibility of more intensive and extensive agriculture production will have to be thoroughly considered in the future development of Jones County.

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*Unpublished material, provided by Soil Conservation Service, U.S.D.A., Kinston office, Mr. Joe Williams, District Conservationist.

Forestry

Forestry has become an important income producer in Jones County and it is likely this trend will continue. As indicated in the analysis of soils in Jones County, many areas which are not suitable for urban development nor crop production are suitable for various types of timber production (see preceding section of this report, "soils").

It was noted previously that there are 207,995 acres of commercial forest in Jones County. According to the 1971 publication, North Carolina Conservation Needs Inventory,* there are 31,199 acres of commercial forest in the County that is producing below its potential because of inadequate stocking. According to this same source, there is another 108,157 acres of commercial forest in the County in need of other timber stand improvements. Only 68,639 of the 207,995 total acres of commercial forest in the County, according to the report, is considered to have adequate treatment to meet the existing conservation problems.

The above would indicate a fairly high potential for increased timber production in Jones County.

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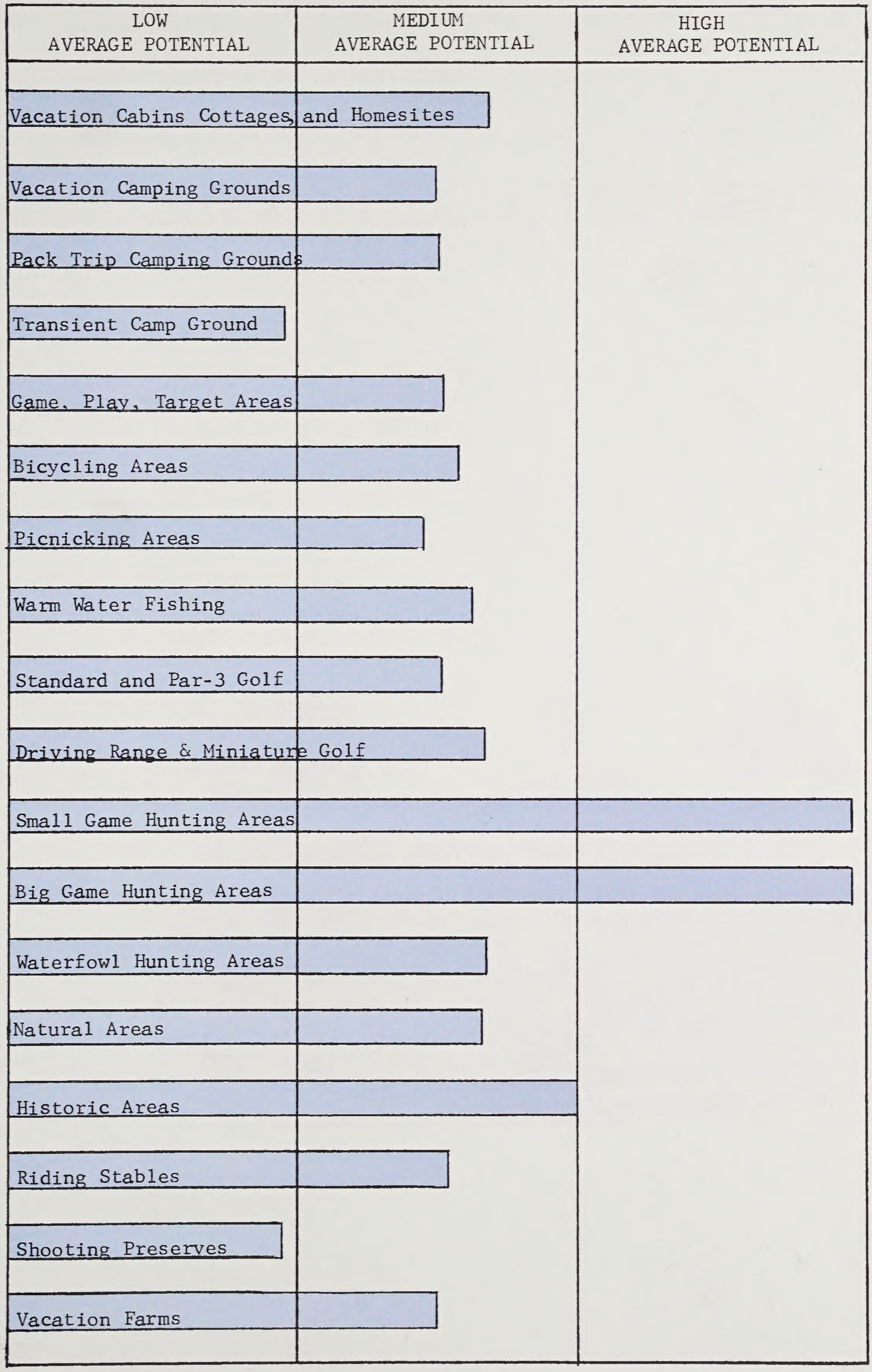
*North Carolina Conservation Needs Inventory, prepared by: North Carolina Soil and Water Conservation Needs Committee; offset, (Raleigh, 1971).

Illustration XIII

RECREATION DEVELOPMENT POTENTIAL



SKETCH DEVELOPMENT PLAN

INTRODUCTION

The Sketch Development Plan should serve as a general guide to the orderly future development of Jones County. The plan is not a detailed, rigid design for future development, but rather a flexible, working guide to assist in establishing development policy and to give direction to the future development of the County.

Many of the factors which will have a bearing on the future development of Jones County were discussed previously in the Land Potential Study. The Sketch Development Plan takes into consideration these factors, both positive and negative, in providing for the future development of the County.

DEVELOPMENT GOALS AND OBJECTIVES

Outlined below are basic, general goals and objectives to assist in establishing future development policies and to help guide the location of future land uses in Jones County.

> Preserve and enhance the individuality and identity of the rural communities and incorporated municipalities of Jones County while at the same time encouraging continued and more extensive cooperation among them.
>
> Strive to provide an environment in which every resident of the County may have the opportunity to secure adequate, safe, and decent housing.
>
> Discourage the development of land which is unsuitable for urban use because of periodic flooding, inadequate drainage or other reasons.
>
> Protect and enhance the natural, scenic and historic areas of the County for the benefit of all citizens.
>
> Strive to develop adequate and efficient public utilities and community facilities to meet present and anticipated future needs of Jones County.
>
> Encourage the coordination of growth and development in Jones County with the growth and development of the other cities and counties of State Planning Region "P" by cooperating and participating to the extent possible in the regional planning and development programs of the Neuse River Council of Governments.
>
> Continue the strong, working relationship among the Board of Commissioners, County Planning Board, Office of County Resource Development, and other county agencies, committees and commissions to implement the plans proposed for Jones County's future development.
>
> Continue to strengthen the existing planning program in Jones County to provide for the necessary balance between man and his physical and social environment in the future development of the County.

In conclusion, it should be remembered that all of the goals indicated above are general in nature, with the intent of allowing flexibility while providing a sound framework within which a comprehensive development program can flourish. There are many other general goals for the development of the County which could be added to the above list, and they should be added as the people of Jones County become more aware of their specific needs and desires. Establishment of goals for community development without the advice and consent of the people of the community is a purely academic exercise and seldom are such goals valuable or useful. As was intimated previously, planning is for people. In order to establish realistic goals for future development and to guide a successful planning program such goals must consider the needs and desires of the people.

There are at least two other alternatives in planning for future development: 1) establish no set goals -- a choice which would produce a void insofar as organizational structure is concerned, resulting in a lack of definite direction for any proposed development plan, or 2) establish more detailed and more specific goals at the outset -- an alternative which would provide little or no opportunity to alter the plan for development even in the event circumstances changed to such an extent that a change in either emphasis or direction might well become justified. In the latter situation, each time circumstances changed, the total process of development would come to a standstill until and unless new goals and new plans were formulated and adopted.

FUTURE LAND USE

There are four major types of urban land use provided for in the Sketch Development Plan Map: residential, public and semi-public, commercial and industrial. In order to provide public officials and private developers with guidelines to assist in evaluating development proposals, development principles and standards for the various land principles and standards for the various land uses are presented in the following paragraphs. The locations shown on the Land Use Plan Map (Illustration XIV) are intended to demonstrate desirable relationships of future land uses in the County. It is not intended that the Land Use Plan Map show specific property boundaries but only general locations.

RESIDENTIAL LAND USES

Two types of residential land uses are provided for in the future development of Jones County: 1) low density, which is complementary to existing rural residential development in the County and 2) medium density, which will complement the more urban developed areas of the County.

Low-Density Residential

Low-density residential land uses are anticipated to range between 1 and 3 families per acre with an average lot size of approximately 20,000 square feet. It is not anticipated that public water or sewer facilities will be available for this type of development and that individual wells and septic tanks will be utilized.

The low-density residential land uses should be located in the existing rural communities of the County and complement and blend with the agrarian way of life.

Medium-Density Residential

Medium-density residential land uses are anticipated to range between 3 and 5 families per acre with an average lot size of 15,000 square feet. Public water and/or sewer facilities should be available to serve the medium-density residential areas and provisions should be made for multi-family residential development such as apartments in these areas.

The medium-density residential will necessarily be concentrated near existing incorporated municipalities in the County, because of the need for utilities and the provision of other necessary public and community facilities to service this type of development. The medium-density residential land uses should complement and blend with the more urban way of life existing in the incorporated municipalities.

Development Principles and Standards

(1) Future residential development should take place on land having stable, well-drained soils, and free from the danger of flooding. Gently rolling to nearly level topography is desirable for most types of residential development.

(2) The type and density of residential development should be determined based on topography and soil conditions, proximity to major access streets and highways, proximity to urban service areas, the availability of utilities and other community facilities such as fire and police protection services, schools, churches, and medical facilities.

(3) Residential development should preserve or create neighborhoods free from the encroachment of more intensive incompatible land uses.

(4) Innovative ideas in residential development such as "planned unit developments," mobile home and prefabricated housing developments, should be given adequate consideration as a means of solving present and anticipated future housing problems in the County.

COMMERCIAL LAND USES

Future commercial land uses should be concentrated primarily in and near the incorporated municipalities of Jones County to help provide an urban service lease for the existing and future residents of the County. Commercial development in the more rural communities of the County should be limited to neighborhood type facilities (grocery stores, service stations, etc.) designed to serve local area residents only.

Development Principles and Standards

(1) New commercial developments should be in uniform and concentrated planned developments with adequate space for off-street parking, and loading and unloading.

(2) Spot commercial development in residential neighborhoods and the stringing out of commercial development along streets and roads (strip development) should be discouraged.

(3) Existing commercial developments should be encouraged and assisted to the fullest extent possible in correcting existing deficiencies and in improving traffic safety and convenience.

PUBLIC AND SEMI-PUBLIC LAND USES

Public and semi-public land uses which include local, state, and federal government lands and facilities, churches, schools, and public recreation facilities, are anticipated to continue to occupy a significant proportion of the developed land in Jones County. Future development of public and semi-public land uses should adhere to the principles and standards for development given below.

Development Principles and Standards

(1) New churches, schools, and similar facilities should locate near the center of existing and projected population concentrations to attain maximum efficiency and convenience.

(2) Because of the expanding function and use of churches for other than strictly religious meetings, new church sites should contain a minimum of 3 acres to provide for off-street parking and other desirable facilities for church-sponsored week-day activities.

(3) All public facilities should be planned to take maximum advantage of expended public monies in providing multi-use facilities where possible. School facilities should be available for future summer supervised recreation programs in the County. Public meeting facilities should be designed to serve various citizen groups in the County.

INDUSTRIAL LAND USES

A primary objective of Jones County during the next few years should be to establish a strong, permanent industrial economic base to complement the existing agri-business economy of the County. A prime consideration in providing for future industrial development is the availability of various suitable industrial development sites. The following development principles and standards are offered to assist in providing suitable industrial building sites.

Development Principles and Standards

(1) Site size requirements for different types of industry vary widely as does the locational requirements. Therefore, there should be provided a range of choice in site size and location with sufficient flexibility to meet the needs of a wide variety of industries.

(2) Industrial development should take place on land having stable, well-drained soils. Topography should be reasonably level and free from flooding. Climatic factors such as prevailing wind direction and speed should be considered in relation to other urban development when considering potential industrial locations.

(3) Appropriate transportation facilities with good access to highways and where possible, rail facilities should be available to industrial areas. Industrial plants which may generate large volumes of traffic should be located on major roads so as not to encourage traffic through residential areas. Where possible, industrial areas should be buffered by major highways, railroads, greater setbacks depth or natural topographic features.

(4) Where possible, basic utilities such as water, sewer, and electricity should be made available in adequate capacities to potential industrial areas.

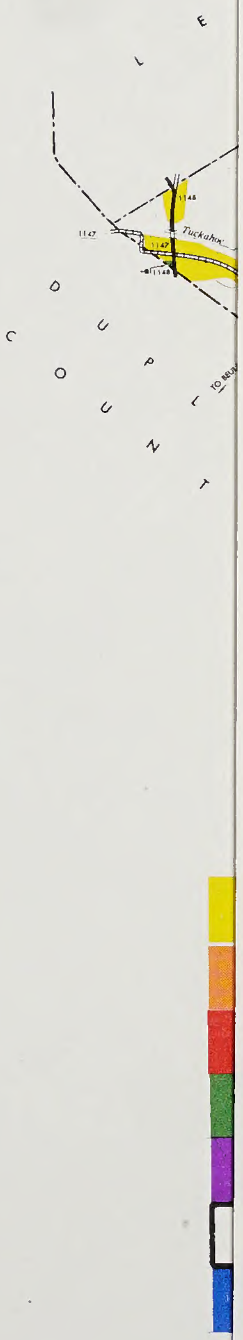
(5) Land set aside for industrial use should not usurp other community needs or be arranged so as to hinder proper residential or commercial growth. At the same time, it is equally important that residential and commercial development not be permitted to encroach upon land planned for industrial use.

SUMMARY AND CONCLUSIONS

It is important to keep in mind that the Land Use Plan is intended primarily to show needed relationships between future land uses and to use as a guide for the future Development of Jones County. It is not a rigid design to adhere to as one would construction plans for a house or other building. It is most important at this time that the County develop and adopt sound and reasonable development policy toward the future growth of the County.

The "industrial lands" indicated on the Land Use Plan Map are to be considered preferred potential industrial areas based on factors brought out in the Land Potential Study as well as other considerations. It is not expected nor anticipated that industries will locate on all locations. There are, of course, other areas in Jones County that would be equally as acceptable for industrial development and it is likely that other areas suitable for industrial development will be recognized and developed. The same is true for areas planned for commercial and residential uses.

Finally, it should be noted that the Land Potential Study and Sketch Development Plan were prepared by the Jones County Planning Board for the benefit of all the citizens of the County. The use of and consequently the success of these studies and plans will likewise be dependent upon all the citizens of the County.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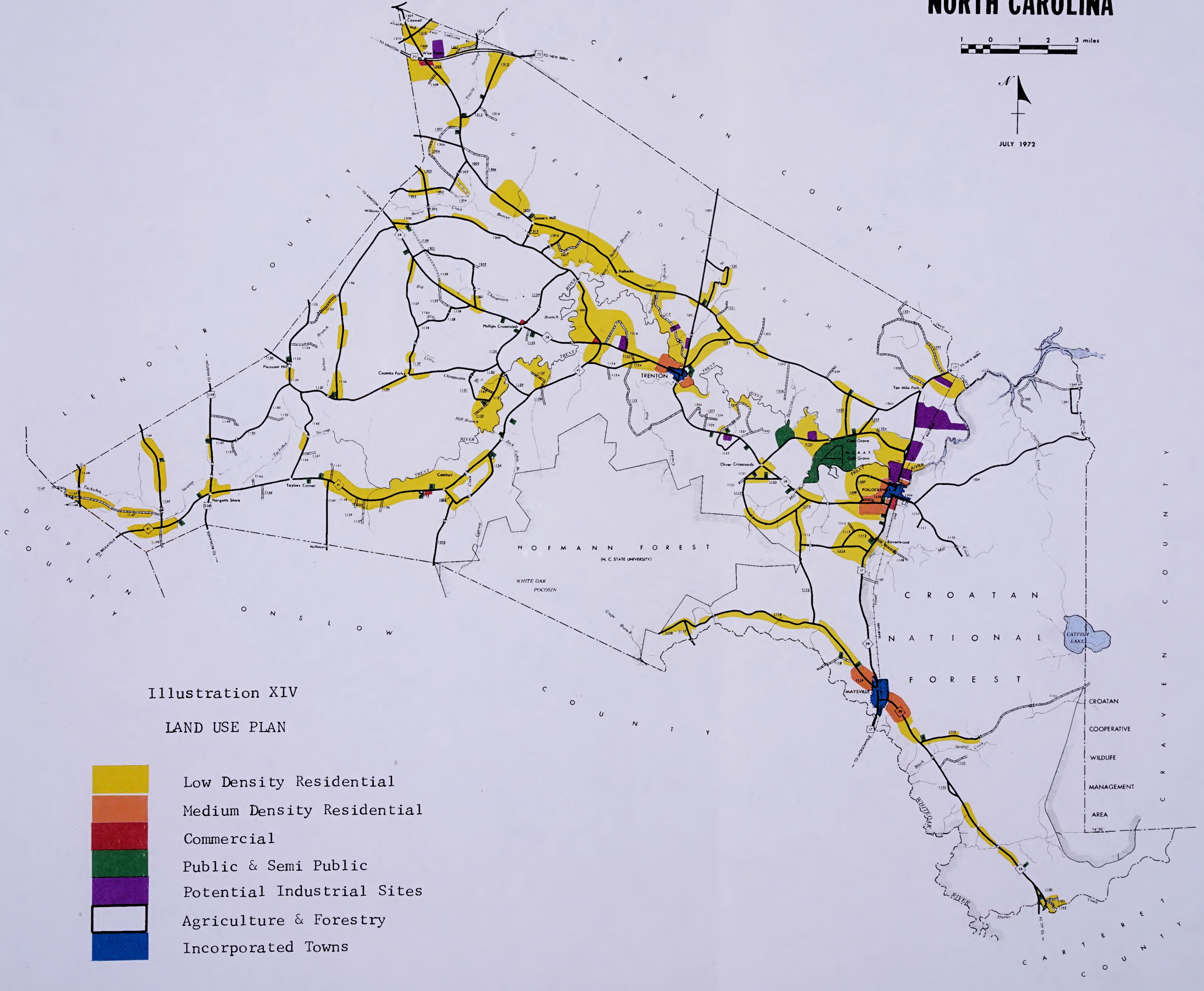
JONES COUNTY

NORTH CAROLINA



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LAND USE PLAN

🟨 Low Density Residential

🟧 Medium Density Residential

🟥 Commercial

🟩 Public & Semi Public

🟪 Potential Industrial Sites

⬜ Agriculture & Forestry

🟦 Incorporated Towns

JONES COUNTY
NORTH CAROLINA

APPENDIX

APPENDIX A

ENVIRONMENTAL IMPACT STATEMENT

The following is submitted to meet Federal requirements under Section 4-6a of the HUD Handbook, and State requirements as defined in the North Carolina Environmental Policy Act (GS 113A).

LAND POTENTIAL STUDY - SKETCH DEVELOPMENT PLAN

1. Abstract

The Land Potential Study investigates those factors, both natural and man-made, which create a potential for or will influence the future development of Jones County.

The Sketch Development Plan, based generally on the findings and recommendations of the Land Potential Study, provides a general guide to aid local citizens and governmental agencies in the future development of Jones County. Included are basic general "goals and objectives", and "development principles and standards" to assist the county in establishing development policies, and a "Land Use Plan" to guide the location of future land uses in the County.

2. The Environmental Impact (Beneficial As Well As Adverse) of the Proposed Plans or Policies, If They are Carried Out

The Land Potential Study along with the Sketch Development Plan should have significant beneficial impact on the environment of Jones County if the findings and recommendations are considered in future development. A basic purpose of the Study and Plan is to provide information to enable those responsible for regulating the future development of Jones County to establish development policies that will minimize damage and disturbance to the physical and cultural environment in the future development of the County.

3. Any Adverse Environmental Effects Which Cannot Be Avoided Should The Proposed Plans or Policies Be Implemented

The proposed plans and recommended policies should minimize adverse environmental impact of the future development of Jones County. Unavoidable adverse environmental impact in the future development of the County would include: 1) increase in sewerage and solid waste, and automobile pollution emissions owing to anticipated increase in population and associated development; 2) removal of ground water to supply industrial and potable water to new developments; 3) reduction of some natural vegetation, decrease in ground water replenishment and increase in rain water runoff as a result of new development; and 4) increased demand on resource-oriented recreation areas as a result of increase in population.

4. Alternatives to the Proposed Plans or Policies and an Analysis of Those Alternatives

The alternatives to development without benefit of a Study and Plan would be to have either totally unguided growth with little or no basis for development policies, or no growth. Neither of these alternatives would be acceptable.

5. The Relationship, Under the Proposed Plans or Policies, Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

The proposed plans, policies and other recommendations contained in the Land Potential Study and Sketch Development Plan are directed in large part toward the protection and conservation of the natural environment both from a short-term and long-term standpoint.

6. Any Irreversible and Irretrievable Commitments of Resources Which Would Be Involved If The Proposed Plans or Policies Should Be Implemented

There would be an expected amount of agriculture and forest lands converted to urban use if the plans and policies are implemented; however, by considering the existing resources and coordinating future development as is proposed in the Study and Plan unnecessary use and destruction of resources will be avoided.

7. A Statement Setting Forth Applicable Federal, State, and Local Environmental Controls

Federal

- National Environmental Policy Act of 1969.
- Land and Water Conservation Fund Act, 1964.
- Executive Order 11507, prevention, control and abatement of Air and Water Pollution.
- Executive Order 11514, Protection and Enhancement of Environmental Qualities.
- Executive Order 11593, Protection and Enhancement of Cultural Environment.
- Environmental Quality Improvement Act of 1970.

State

- Soil Conservation District Law of 1937
- Water Use Act of 1967

- Environmental Policy Act of 1971.
- Water and Air Quality Reporting Act of 1971.

Local

- Jones County Health Department Regulations
- Subdivision Regulations

8. Mitigation Measures Proposed to Minimize the Impact

The use of the Study and Plan by governmental agencies, private developers and land owners to guide the future development of Jones County will act to mitigate the adverse environmental effects of growth in Jones County.